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MID-TERM EVALUATION REPORT
RADIO EDUCATION TEACHER TRAINING II
USAID/NEPAL
HMG/N MINISTRY OF EDUCATION AND CULTURE
PROJECT NO. 367-0146

by:

Dr. Willard D. Shaw, Team Leader
USAID Rural Satellite Program
Academy for Educational Development
Washington, D.C.

Mr. David C. Edgerton
USAID Radio Learning Project - Honduras
Academy for Educational Development
Washington, D.C.

Dr. Mana P. Wagley
Tribhuvan University
Kathmandu, Nepal

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I. INTRODUCTION

This report is a mid-point evaluation of the RETT II project. The report also offers recommendations regarding the institutionalization of systems and resources developed over the course of the RETT I - RETT II project sequence. The overall purpose of the RETT projects is to increase the access of children in Nepal to relevant, effective education through the use of distance education systems, instructional radio in particular. RETT II has aimed at providing primary teachers with radio-based, in-service training in English and other core academic areas.

In preparing this report, the evaluation team reviewed all available RETT documentation, interviewed the staff and technical advisors of the Radio Education Division, and talked with many other associates and friends of the project in the Ministry of Education, the Research Centre for Educational Innovation and Development (CERID), and elsewhere in government and education. A list of the people with whom the team conducted its principal interviews is attached as Appendix A.

The team presented its preliminary findings to Radio Education Division staff and other key people associated with the project at an intensive one-day workshop at the Himalaya Hotel on Wednesday, February 23, 1987. The comments and suggestions of the workshop participants figured importantly in the team's subsequent deliberations. The workshop agenda is attached as Appendix C and a list of workshop participants as Appendix D.

The team also gathered information through questionnaires distributed to 126 teachers in four of the five districts that have participated to date in RETT II pilot activities and met with 24 of these teachers in Nuwakot District. An English translation of the questionnaire, with tabulated responses, is attached as Appendix B.

The team developed its investigations in response to a highly detailed Scope of Work provided by the Project Development and Implementation Support Office, USAID/N, the office which commissioned the report. The report's general format, findings, discussion, and recommendations on a wide-ranging variety of topics is aimed at providing orderly responses to the enquiries posited in that Scope of Work.

We express our sincere gratitude to the staff and associates of the RETT II project both for their generous and diligent help in providing the information from which the report is constructed and for their hospitality and patient good humor over the course of five very busy weeks.

II. EXECUTIVE SUMMARY

A. BACKGROUND

Since 1978, USAID/Nepal has supported the development of an educational radio capability within the Ministry of Education and Culture (MOEC) of His Majesty's Government of Nepal by means of two successive Radio Education Teacher Training (RETT) Projects. These projects focused on the development of a Radio Education Division (RED) within the MOEC that would deliver in-service training programs to primary school teachers who lacked a high school diploma--the School Leaving Certificate (SLC).

RETT I (1978-83) developed radio lessons and self-instructional print materials for all eight subjects taught in grades one through three and also provided Radio Nepal with a 100 kilowatt shortwave transmitter and technical training. The RETT I project emphasized appropriate teaching methodologies as well as a review of the content of the first three primary grades. By 1985, RETT I had enrolled 5,593 teachers in its ten-month program of five one-hour broadcasts per week. Fifty-three percent of those teachers passed the RETT I final examination, were certified as trained teachers by the MOEC, and were given an additional allowance of sixty-five rupees per month.

The RETT I Final Evaluation Report determined that few teachers who took the course actually adopted the teaching methodologies, primarily because of the absence of face-to-face practice sessions. The report noted that the project had been more successful in delivering content information and recommended that a follow-on project should be launched to increase the content knowledge of under-SLC teachers up to the SLC-pass level.

RETT II was begun in 1984 with the goal of developing radio courses in English, mathematics, science, and Nepali, the four subjects causing most SLC failures. Passing the SLC was seen as a strong motivating force for under-SLC teachers because the SLC is required for permanent appointment as a teacher. In addition to permanent status, teachers with the SLC are also entitled to a higher salary. RETT II has the additional goals of improving the research capability of RED and CERID (Research Center for Educational Innovation and Development) and the capacity of Radio Nepal to broadcast two programs simultaneously.

B. PRESENT STATUS OF RETT II

During the first three years of RETT II, there has been a continuing development of RED's ability to create and deliver educational radio programs. The RED office building has been expanded and additional recording equipment has been installed. Radio Nepal has received equipment and training that has enhanced its ability to support educational programming. The Government of Nepal provided 45 temporary staff positions for RED including a second class officer position for the Chief of RED, the highest level yet sanctioned for that unit. AID technical advisors have assisted RED in the development of its management, evaluation, and program production components. A scriptwriting/production/ evaluation process has been put into place, staff members have been trained, and 117 twenty-minute English language lessons have been pilot-tested with 171 teachers in five districts. A revised version of this series will be broadcast to over 400 teachers in 10 districts during 1987.

Although USAID/Nepal has provided support to RED for the last eight years, the division has been slow to develop due to leadership and staff changes and a lack of

institutionalization. In eight years, RED has had at least eight directors (many of them "Acting") and has changed its administrative location four times. Of the twenty RETT I staff members sent overseas for training, only six are still working at RED. RETT II, therefore, did not inherit a fully developed staff from RETT I. In many cases it had to start the staff development process all over again. A delay in the fulfillment of certain project covenants in the grant agreement hindered the flow of funds from both governments and further restricted the progress of RETT II. Despite these difficulties, RETT II has succeeded in developing and testing its English language tuition program; however, the project is behind schedule and has little chance of reaching the ambitious targets set out in the project plan.

The problems currently facing the project, however, go far beyond those related to the achievement of work plan goals. The Radio Education Division is at a critical stage in its development. After a long struggle, it is finally reaching the point of being institutionalized within the MOEC structure. The Government of Nepal has given permission for the creation of 20 permanent positions for RED, and the MOEC has ordered that RED be moved from its present administrative location and merged with the Training Sub-Division. If the staff selection and merger processes are well-managed, and if vigorous and informed leadership for RED is provided, RED will emerge in five months time as a strengthened entity capable of developing into a permanent institution of great value. It will still require continued support for staff development; however, it will finally have a human and institutional base upon which it can grow at a steady pace. The RETT II work plan may be interrupted further, but USAID/N will achieve its long-range goal of having an institutionalized radio education unit with permanent employees. The danger is that the leadership and staff selection processes and the merger with the Training Sub-Division will not be managed in a way that will strengthen RED. There is a strong possibility that RED will emerge as an even weaker organization that no longer merits AID support.

The actions of the next few months will be crucial in determining if RED will continue to develop as a professional radio education unit capable of serving the needs of the MOEC. A number of vitally important issues have to be successfully resolved soon if RED is to enter into a period of sustained and positive growth. Among those issues are:

- the staffing and leadership of RED
- the nature of its target audiences and programming
- its permanent place within the MOEC administrative framework
- its ability to produce high quality, effective educational radio programs
- its development of a distance education support system that enhances the learning of its program participants
- its success in developing a constituency within the MOEC that will support its budget and staffing requests
- its future relationship with AID.

Over the remaining life of the RETT II project, it is essential that the MOEC and USAID/N work towards the solution of these major issues. The achievement of work plan goals should be secondary to this effort. If these issues can be resolved, the Radio Education Division will emerge at the end of the RETT II project, in 1989, as a professional organization able to handle all of the educational radio needs of the MOEC. USAID/N should then seriously consider continuing support of RED, particularly if its mandate is expanded to include areas beyond teacher training. If these issues are not resolved, RED will probably never develop well enough to assume such a role and further USAID/N investment will bring little benefit.

The evaluation team recommends the postponement until 1988 of the development of a mathematics course and the indefinite postponement of plans for SLC tuition courses in science and Nepali. Between now and the 1989 project completion date, the project should concentrate on addressing the issues listed above and on accomplishing the following major tasks:

- the continued development of staff skills
- the establishment of RED as a distance education resource center providing services for all of the Ministry's needs
- the development of a high quality, instructionally effective English language program that is attractive to a larger audience beyond teachers
- the identification of new program directions and wider audiences for RED programming.

RETT II will be a success if by 1989 the MOEC has a radio education unit that is professionally trained and led, that has demonstrated that it can produce quality programming resulting in significant learning, and that has the capability of developing radio programs for a wide variety of audiences and purposes. In order to achieve these goals, the evaluation team offers the following recommendations. The full evaluation report discusses each of these issues and recommendations in detail.

C. RECOMMENDATIONS

I. Reassessment of Project Goals and Work Plan

- a. **In the future, RED should direct its programming at larger audiences, such as all untrained teachers, primary students, or all SLC takers, and not focus all resources on programming that can only provide limited benefits for small groups of learners.**

The present target audience is too small; it may actually be disappearing if the SLC requirement for primary teachers is left unchanged. Few of these teachers will actually be able to pass the SLC with only radio instruction.

- b. **RED should concentrate all of its resources in 1987 towards the production of a revised English tuition course of high quality and broad appeal.**

Based on the results of Pilot English I, the English course needs to be extensively revised by:

- simplifying the characters and setting
- greatly increasing the pay scales of actors in order to attract more professional performers
- increasing the technical quality of the programs
- giving homework assignments and answers during the broadcasts
- increasing the length of the broadcasts to 30 minutes
- broadcasting the programs at a time more convenient for the listeners (i.e., after 7 p.m.)
- delaying the start of Pilot English II until June 1, 1987 in order to allow more time for the development of a high quality program.

- c. **MOEC should strongly consider promoting the English Tuition course as suitable for a nationwide audience in 1988 and making the teachers' study guide available to the general public.**
This would be a more efficient use of radio and this SLC preparatory course and would generate support for, and understanding of, the role of educational radio in national development. Given its heavy development costs, this English program should be shared with as wide an audience as possible.
- d. **Preparation of the Math Tuition Program should be delayed until 1988 in order to concentrate all resources on the revision of the English language program.**
Depending on a reassessment by RED/MOEC of their radio education goals, the future math program could be developed in one of three ways. These are listed below in order of preference based on the professional judgements of the evaluation team:
- an in-school primary math program adapted from existing materials successfully used in Thailand, Nicaragua, and the Dominican Republic. This could be field-tested in the Kathmandu Valley using the medium wave transmitter. The team feels that this strategy has the best promise of improving the quality of primary education and the teaching skills of primary teachers.
 - a math series for primary teachers focusing on the content of grades 1-5 and the methodologies needed to teach that content. This approach would be particularly effective if it focused on all 34,000 untrained teachers and not just on under-SLC teachers.
 - an upper level math SLC tuition course based on the content of grades 9-10 and aimed at both teachers and the general public. The team strongly feels that this approach will benefit very few teachers and is no longer worth pursuing.
- e. **The proposed science and Nepali SLC tuition courses should be postponed pending a RED/MOEC decision on the usefulness of continuing with the development of SLC tuition courses.**
- f. **The revised RED formative evaluation plan for three teacher observation groups to meet regularly at RED and for regular field observations by RED personnel should be fully implemented during the development of the revised Pilot English series.**
- g. **The Radio Education Project Research Committee should be reconstituted and meet on a regular basis.**
- h. **Activities in the Integrated Research Plan should be prioritized and budgets and timelines prepared jointly by RED and CERID.**
- i. **The revised Pilot English tuition series should be the subject of intensive RED/CERID monitoring and evaluation, with the goals of thoroughly assessing and documenting:**

- the instructional effectiveness of the series
- the progress achieved by participants of varying academic backgrounds
- the effects of the supervisor system
- the cost-effectiveness of the series, with particular emphasis on cost-per-learner projections.

j. **Incentives for participants and supervisors should be improved with a view of strengthening learners' motivation to follow the course faithfully to completion. Possible motivational activities include:**

- prizes for high post-test scores
- certificates for passing the post-test
- linking subsidized prices for the radios to completion of the post-test
- prizes and/or training opportunities for supervisors
- government recognition of the value of the RED broadcast series through certification of participants as permanent teachers or through a special training allowance for SLC teachers.

2. Technical Assistance

- a. **An instructional radio writer/producer should be recruited as soon as possible to work with RED staff for 18-24 months on the revision of the English tuition course and on initial preparations for the development of a math course in 1988.**
This person would replace the long-term math specialist who was to have begun a two-year consultancy in 1987.
- b. **An ESL/materials development specialist should be locally recruited in 1987 to assist in the development of a study guide for the revised Pilot English series.**
- c. **A mathematics specialist should be recruited for three months work in 1988 to assist in the development of the RETT II mathematics series.**
- d. **The technical assistance to RED supplied by the current IEES advisor and AID Research Advisor should continue through 1988.**
Their primary goals should be to develop an internal RED capability to do research and evaluation and to promote better management of RED programs.
- e. **An ESL teacher should be recruited locally to coach actors and to improve the English language skills of RED typists.**

3. Institutionalization

- a. **The Radio Education Division should administratively evolve into an independent Distance Education Center servicing all of the radio education needs of the MOEC through a two step process:**

- The current merger with the Training Sub-Division should be carried out with the five permanent posts and personnel of the Training office being incorporated into the RED Sano Thimi office thus creating a Distance Education and Training Unit.
- As soon as possible, this unit should be merged with the Audio-Visual Division of CTSDC to create an independent Distance Education Center. This center would provide:
 - educational radio and audio-visual services for all of the MOEC
 - in-school and regular broadcasts for all sections of the MOEC
 - cost-efficient use of studio equipment and personnel
 - high quality products because of the efficient concentration of human and physical resources
 - cost savings to MOEC due to consolidation of functions, expertise, equipment, and personnel into one unit that serves all parts of the MOEC.

It should be noted that the in-school math program listed in Section A4 can only be implemented if RED is merged with the Audio-Visual Division and receives a mandate to do in-school broadcasting.

- b. **Immediate steps must be taken to ensure that the best available people are selected for the 20 permanent positions including:**
 - nomination of the best qualified people presently on staff to the new permanent positions
 - preparation of qualifications requirements for the new positions for the Public Services Commission.
- c. **RED should request the continuation of 27 temporary positions for fiscal year 1987-88 in order to be able to carry out its responsibilities.** Of the 45 positions currently sanctioned for RED, only 18 are being made permanent. Two of the permanent positions are entirely new ones. The need for a large number of temporary staff positions will decrease if the merger with the Audio-Visual Section is carried out.
- d. **No overseas training should be carried out until the English tuition program is thoroughly revised. On-the-job training efforts should continue.**
- e. **RED should vigorously pursue the development of a distance education support system through cooperation with the District Education Offices (DEOs).**

Print materials and contact sessions are necessary to support the radio broadcasts and promote effective learning. RED should:

- provide training to DEOs and supervisors
- provide travel allowances for supervisors to visit RED participants
- establish a reporting system for supervisors
- provide DEOs with the work plans for supervisors
- provide prizes or other incentives for DEOs and supervisors.

4. Future Action by USAID/Nepal

- a. **No plans for continued support of RED beyond RETT II should be instituted until the staffing, leadership, and institutionalization issues are successfully resolved.**
- b. **Following the appointment of qualified staff and leadership and the clarification of RED's administrative placement (either as a Unit or a Center as outlined in points C.1.a+b), USAID should carry out an assessment of MOEC's radio education capacity, the most promising program areas and target audiences needing attention, the effective coverage of Radio Nepal's transmitters, and the need and feasibility of further AID support for radio education following the end of RETT II.**

After heavy investments of time and money by both MOEC and AID, the Radio Education Division has reached a critical point in its development. If immediate action is taken to settle the outstanding issues of staffing, leadership, and institutionalization, RED will be able to justify this investment and make an important contribution to the education sector. A failure to successfully address these issues may result in a radio education office that is incapable of meeting its responsibility to produce high quality, effective radio programming.

III. REASSESSING THE DIRECTION OF THE PROJECT

A. PRESENT SITUATION

- RETT I (1978-83) developed a training program for untrained, under-SLC primary teachers that concentrated on teaching methodologies and a review of content for all subjects taught in grades 1-3. RETT II (1984-89) was designed to improve the content knowledge of under-SLC teachers in four subject areas: English, Nepali, math, and science. The goal was to increase their knowledge in these areas to the SLC-pass level.
- Achievement testing of a sample population showed that their English skills were at the 7.2 grade level. It was decided to base the RETT II Pilot English program primarily on the materials of grades 7-10, although some material was also included from grades five and six. When the pilot phase showed that many enrolled teachers could not cope with this level of instruction, it was decided that the English program should be revised, based on the material from grades 9-10, and directed at teachers who were already at or near this upper level. An admission test has been used to select the participants for Pilot English II.
- Although this under-SLC target group has been increasing in actual numbers from 1980-85, it has declined as a percentage of all primary teachers from 35% in 1980 to only 27% in 1985. It will continue to decline further.
- In 1980, the Government of Nepal ruled that only SLC holders could be given permanent jobs as primary teachers. Under-SLC people are now hired on a temporary basis when suitable SLC holders are not available.
- Of the 14,000 under-SLC teachers in the country, it is estimated that at least half already hold permanent positions because they held their posts at least one year before the GON's decree. It is assumed that few in this group are interested in trying to pass the SLC.
- Of the 7,000 temporary, under-SLC teachers, it is estimated that a maximum of 40% are of the level of SLC minus two subjects: the group that has a reasonable chance to actually pass the SLC if they undergo a thorough tuition program.
- The target audience for RETT II, therefore, may be no larger than 2,800 nationwide and is actually smaller than that when factors such as motivation and radio reception are taken into account.
- In 1985, Nepal had 51,000 primary teachers. Sixty-eight percent of these teachers were untrained, including 26,000 SLC holders who are ineligible for RETT I training.
- Each year over 112,000 people take the SLC examination. Over 1.5 million students are enrolled in primary schools. Over 11,000,000 of Nepal's people are illiterate.

B. DISCUSSION

The evaluation team has serious concerns regarding the present direction of the project. These concerns are primarily related to:

1. the declining importance and relevance of the present target group
2. the uncertainty that any amount of radio tuition will enable a significant proportion of these teachers to pass the SLC
3. the dubious relevance of SLC achievement to the project goals of improved teacher performance and more effective primary education
4. the use of radio to reach a limited, potential audience of several thousand when other larger and more important audiences are available.

During the planning of RETT I in the late 1970's, under-SLC teachers accounted for over 42% of all primary teachers. The increasing availability of SLC holders and the GON's decision to grant permanent status only to SLC holders has led to a steady decrease in the percentage of under-SLC people in the teaching profession to only 27% in 1985. Given this situation, it is entirely possible that this class of under-SLC, temporary teachers will disappear over the next five to ten years except in very remote areas where no SLC holders may wish to work. (Note: This situation could drastically change in the next five years if the recent decision to have compulsory, universal education by the year 2000 forces the MOEC to hire thousands of under-SLC teachers.)

RETT II, therefore, is directed at a population that may gradually become extinct. Half of the 14,000 under-SLC teachers are older teachers who achieved permanent status before the GON promulgated the SLC requirement for primary positions. Few in this group are interested in passing the SLC at this stage in their careers. Of the remaining 7,000 teachers, RED staff estimate that those who are "under-SLC minus two subjects" are the most likely group to benefit from the present radio tuition program. It is estimated that this group accounts for a maximum of 40% of that 7,000. Out of this small potential audience, some live in areas where radio reception is too poor for effective instruction, some are not motivated to study for the SLC, and some will probably be replaced as the local committees find suitable SLC holders to take their places.

While the current radio tuition course may help some people to improve their performance on the SLC, it is doubtful that the 39 hours of English lessons spread over 10 months will enable a large number of these teachers to pass the English portion of the SLC - the section failed by 82% of the present RETT II teachers. It would be a mistake to link the success of RETT II with improved SLC pass rates of these teachers. Even if the teachers follow all of the broadcasts and study on their own, the nature of the SLC test makes it doubtful that many will actually pass.

Even if RETT II were to accomplish the impossible and actually help large numbers of under-SLC teachers pass the SLC, it is doubtful if this success would translate into better teacher performance and improved primary education. The grade 9-10 material that is to be covered by RETT II is not the same material that teachers will teach in primary grades 1-5. Less than 20% of the teachers enrolled in the present English program actually teach English in their schools. Only one of the 24 teachers

interviewed in Nuwakot was an English teacher. (English instruction only begins from grade four.) Even if all were English teachers, one could argue that improved English teaching is not a major priority for the vast majority of Nepalese school children. Although it is possible to argue that a high school degree will make these people better teachers, it is obvious that this approach will only indirectly affect the quality of primary education and teaching in Nepal.

The Radio Education Division is currently devoting almost all of its resources towards reaching this under-SLC teacher audience that is becoming less and less of a significant force in Nepalese primary education. RED needs to also consider some of the other audiences which would benefit from radio instruction and make the use of radio more cost-efficient due to their larger membership. Among the strategies and audiences it should seriously consider are the following:

1. Direct Classroom Instruction to that portion of the 1.5 million primary school population currently in the medium wave broadcast area. This would be the most direct and efficient way of improving primary education by radio. A teacher training component should be included as an important part of this approach.
2. In-Service Teacher Training aimed at the 34,000 primary teachers who have not received any training, including the 26,000 SLC teachers.
3. Subject Certification Training for some of the 7,000 temporary, under-SLC teachers. This training would have the advantage of being limited in scope in terms of subject matter, would provide teachers with a reasonable chance for success if they seriously studied, and would make them permanent teachers in that particular subject area. This approach might become more important if the government's goal of compulsory, universal primary education by the year 2000 leads to the hiring of thousands of under-SLC teachers.
4. Teacher Service Programs, like RETT I's magazine show, that provide the rural teacher population with information on educational, cultural, and developmental topics.
5. Nationwide SLC Tuition Courses, like RETT II's English course, that are directed at the more than 150,000 people (school leavers, repeaters, and students in grades nine and ten) who annually prepare for the SLC.
6. Social Marketing Programs that use commercial advertising techniques and marketing strategies to promote social change or to stimulate public awareness of specific beneficial practices or products.
7. Adult Education Programs that seek to address educational problems like illiteracy or poor public health practices. Radio could be used to support the literacy programs now receiving help from the Adult Education Division.

RED needs to reach a significant and receptive audience with quality programming that will generate effective instructional results. It will not achieve that if it continues to focus on under-SLC teachers as its sole audience.

C. RECOMMENDATIONS

1. RED should continue to develop its English tuition program for under-SLC teachers so that the staff can continue to develop their skills, RED can meet its commitment to the teachers, and the efficacy of this approach can be determined. It would be too disruptive at this point to call a halt to the present approach. The main goals of the next two years should be to develop the capacity of RED to develop, deliver and evaluate programs and to further develop a distance education support system for its programs and clientele.
2. Pilot Phase II of the English tuition program should be extensively monitored to determine the degree of participant learning achieved, the various progress rates of the different levels of participants (as measured by the pre and post-tests), and the effects upon learning of the distance education support system (i.e., supervisor visits, cluster group meetings, contact sessions, homework assignments). Rigorous research conducted during this phase should provide a basis for MOEC, RED, and USAID/N to assess the suitability and cost-effectiveness of this type of program for this type of audience.
3. If RED can put together a high quality English tuition program in 1987-88, it should seriously consider broadcasting it on a nationwide basis in 1988 and making a student study guide available to the general public. The under-SLC teachers should still be given special support via the distance education support system. Although such a nationwide broadcast would not fall into the scope of RETT's original goals, it would greatly improve its visibility among the public and the MOEC, increase general support for its activities, boost staff morale, and also encourage Radio Nepal to broadcast on all frequencies with no major increase in costs due to the much larger audience.
4. In mid or late 1988, USAID/N should sponsor a radio education assessment team that would review the status and results of the RETT I and II programs, assess the quality of the staff and leadership coming out of the approaching institutionalization and merger phases, examine the reception quality and coverage of Radio Nepal frequencies, and then advise the MOEC on the types of audience and programming RED should concentrate on and determine if AID should continue to play a role in supporting RED. Given the uncertainty of the future of RED following the significant changes which may take place after the nomination of new staff and possibly new leadership, it is impossible for this evaluation team to recommend that USAID/N continue support. Radio education definitely has a future in Nepal. USAID/N support has been the main impetus behind the development of the MOEC's radio education capability. There are definitely great opportunities and needs for additional radio programs such as direct broadcasts to schools and in-service training of teachers; however,

the ability of RED to move in new directions and efficiently use USAID/N support will not be determined until the 20 permanent positions are filled, the 1987-88 budget is announced, and the leadership issue is resolved.

IV. TECHNICAL STATE OF THE PROJECT

A. THE SCRIPTING/PRODUCTION/EVALUATION (SPE) CYCLE

Present Situation

- RETT II has succeeded in establishing a dependable script development, production, and evaluation (SPE) cycle.
- In its first operational year the RETT II SPE system generated 117 twenty-minute radio lessons (see Section 5, Pilot English, below).
- To date, RETT II has not missed any scheduled broadcasts.
- There is little practical linkage between the script development and production phases of the cycle.
- The RETT II studio product to date is not acceptable.
- RETT II formative evaluation for Pilot English consisted of two elements: an Observation Group of learner participants who gathered at RED for observation purposes, and field observations of learners using pilot lessons at home.

Discussion

Educational materials of any kind are normally generated by means of a continuing cycle of work activities that leads from design through production through formative evaluation (preliminary product testing), with the results of evaluation feeding back into the cycle again. In the development of instructional broadcast programming, when copious material is being generated for immediate broadcast, the dependability of this cycle is crucial. Interactive Radio Instruction (IRI) projects are characterized by a rigorously demanding cycle of script development, production, and evaluation (SPE).

The acid test of an SPE cycle is the unit's ability to stay on the air, without missing scheduled broadcasts. Considering the difficulties in setting up a system of this kind, meeting the Pilot English I broadcast schedule was in itself a notable accomplishment. Appendix E shows the steps of the SPE system now in use at RED.

Script Development

To date the energies of the RED staff have necessarily been focused on script development. The script is at the heart of instructional broadcasting. The script is where content goes in or is neglected, presentation is executed well or badly, instructional design honored or abandoned, project goals addressed or ignored. This is not to say that studio production can be treated as an afterthought, but simply to distinguish production values from instructional values, and to affirm that, as has been the case so far with RETT II, when limited resources are not sufficient for the simultaneous development of instructional capacity and broadcast quality, instruction quite rightly comes first.

Linkages among the steps of the RETT II script development process are sensible and orderly. The seven-step script development phase of the SPE schedule (Appendix F) shows two weeks elapsing between the first line, "Methodology," through line 7, "Scripts

Copied and Delivered." The scriptwriting staff confirms that work was never dangerously far behind the script development deadlines.

At this time there is no local RED staffer qualified to manage the SPE cycle. The Instructional Materials Production Specialist has managed it personally and has done much of the design work associated with it. The Scheme of Work for the Pilot English series, the global document on which the series is based, was written by the Instructional Materials Production Specialist and another technical advisor.

Over the course of Pilot English, each of the five scriptwriters tended toward specializing in a single kind of material--spoken language exercises, reading practice, dramatic passages, or continuity material. Pilot English used a segmented program format in which instruction was presented in short, discrete units, each no more than a few minutes long, spread out over the course of a sequence of lessons (see Section D). One writer normally was assigned an entire instructional "strand" of such related segments. Instructional and thematic integrity across the entire strand was far easier to assure with a single writer responsible for all the material. The Head Writer collected and assembled the segments for each script. Two other writers reviewed the scripts for instructional, dramatic, and cultural congruity. These two writers noted their comments on sheets clipped to the front of the script folder and submitted the script to the Head Writer again, who was responsible for final editing.

It is the understanding of the Evaluation Team that Pre-Production Script Review is not presently included in the script review activities. A member of the studio team should have an opportunity to comment on the script's produceability before it reaches the studio. It is the recommendation of the Team that Pre-Production Script Review be restored to the SPE cycle.

The Instructional Materials Production Specialist participated personally in each of the editorial and script-assembly steps, and also served as the technical manager of the SPE cycle, seeing to it that segment-writing assignments were distributed among the writers, making sure that completion of segments did not fall so far behind that the schedule was thrown off, and so on. It is appropriate that a technical advisor should carry out the technical coordination of the cycle during its first operational year, set up the system, see that the work gets underway, and show the host country staff how the system works. What is not appropriate is that no host country RED staffer is positioned to assume these responsibilities now. The technical coordinator of the SPE cycle, the position called "Production Coordinator" in the current RED staff list is crucial to the success of the project. A person with appropriate skills must be identified immediately to fill this position, and must learn the interactive-radio system and the management of the SPE cycle during the development of the revised English course.

Studio Production

The focus on script development during the first half of the pilot phase has meant that the project will now be able to turn to improving its studio production capability with reasonable confidence that the studio's finished products will be instructionally sound. From the beginning of the RETT II SPE cycle, studio "talent" and crew have worked, more or less, in isolation from the rest of the project. This isolation has resulted in a precarious distance between studio work and the instructional aims of the script development staff. It has also meant that, although production values have fallen very low, there is no administrative mechanism within RED for monitoring and improving production.

The most notable failing in RED staff development is the absence of qualified technical management for the SPE cycle. RED needs three technical managers it does not now have: a script editor, a production coordinator, and a studio producer. The script editor is the least problematic of the three needs. Several other members of the script development team would also be capable of specializing in this work.

The work of the production coordinator is extremely demanding technically. Appropriate candidates for this vital position are available both within the present RED staff and elsewhere. If an appropriate person is brought into the production coordinator position in the coming month, there is still sufficient time to carry out a complete on-the-job orientation to RED, under TA supervision, within the current year.

Suitable candidates for studio producer are not apparent within the present RED staff. One solution might be to seek candidates with experience in professional broadcasting. A hopeful possibility is that someone on the present staff of the Audio-Visual Unit might do as RED's studio producer. If so, and if RED and the Audio-Visual Unit are merged as recommended elsewhere in this report, a studio producer could simply come into the RED staff via the merger.

Recommendations

1. RED should focus its energies sharply on achieving marked, uniform improvement in program quality during the remainder of the RETT II project phase and beyond.
2. The following activities need to be added to the SPE schedule:
 - pre-production script review
 - backward revision.
3. Qualified candidates for the three key technical positions of Script Editor, Production Supervisor, and Studio Producer should be identified at the earliest possible date.
4. As efforts are made to develop internal RED formative evaluation capability during the coming year, parallel efforts throughout the Division should be made to devise practical systems to incorporate the entire staff into the formative feedback system. This is particularly important to the script development team but applies to the staff as a whole. Weekly general staff meetings at which the principal topic of discussion is the immediate state of the SPE cycle, and evaluation feedback are highly recommended. These meetings can take place immediately following the Friday teacher-group observations, as was the practice during the past year, but they should ideally involve the entire staff, including administration and studio personnel.

B. RESEARCH AND EVALUATION

Present Situation

- Two external entities, CERID and IEES, contribute to RETT II research and evaluation activities. IEES provides technical advice in research and evaluation and often serves as liaison between CERID

and RED. It appears that communication between CERID and RED is not always complete. The issue of communication arises in the first place from the fact that project research and evaluation capability has not been developed internally, but is attached to the project from outside. There is probably no reason to contemplate changing the arrangement now but RETT II research and evaluation does appear to need better coordination.

- The formative evaluation component is not sufficiently responsive to the needs of the project; likewise, the SPE system has not been responsive to formative evaluation information. Formative evaluation feedback from the field reached RED too late to be of much use in program development, and in any event was not used when it did arrive.
- The IEES-developed Integrated Evaluation Plan is probably overambitious, given present resources.
- One CERID staffer has recently returned from the U.S. for project-funded graduate work. IEES and AID (through the Researcher/Education Systems Designer hired by the Mission and attached to the project) are providing ongoing technical assistance to CERID. No other intensive training efforts aimed at enhancing CERID research capability have been undertaken. CERID notes that a microcomputer needed for its RETT II work has been requested but not provided.
- RED's internal research capability has not developed very far to date. The revised staffing plan, scheduled for implementation on July 15, reduces the RED research staff from two people to one. Apparently, neither of the present RED research staffers is eligible to apply for the new position; it appears likely, therefore, that someone new to the project will be brought in to fill it.
- The Integrated Evaluation Plan does not provide cost estimates by activity or prioritization of activities. CERID is being asked to participate in activities outside of its original scope of work. Without some sort of prioritization of remaining research and evaluation activities, it is possible that the funding allotted for CERID participation may be exhausted before summative evaluation, which is supposed to be CERID's principal task, ever takes place.

Discussion

The project has a reasonably detailed evaluation plan and a large number of evaluation resource people, including the CERID staff, two IEES advisors, the RED Researcher/Education Systems Designer, and the two-person RED evaluation staff.

The goal of upgrading CERID research capability, stated in the Project Agreement, has been addressed through CERID's ongoing work with the IEES advisors and the RED Researcher/Educational Systems Designer; through the provision of one U.S. Master's degree participant training opportunity; and, most importantly, through the

experience CERID has gained in conducting formative evaluation on behalf of the RETT II Pilot English I series. Detailed feedback from IEES on CERID's performance in the Pilot English I evaluation would probably contribute usefully to CERID's continuing development.

CERID's research capability, then, has been provided for; but there has been little progress in developing RED's own internal research capability. On the face of it, the simultaneous involvement in RED evaluation activities of three entities, IEES, CERID, and RED's own staff seems redundant. The project, however, could not function without evaluation, and RED's own staff is not at present capable of generating the array of evaluation activities required for RETT II to succeed. The RED research unit is staffed by two people who received short-term training in the U.S. under RETT I. These two staffers do not have either the academic backgrounds or the temperament necessary to contribute significantly to RED research-and-evaluation activities. They seem resentful of the roles technical advisors have played in enlisting CERID's participation in the project; yet they are not equipped to replace either those advisors or CERID.

The present arrangements with entities outside the project should continue for lack of better alternatives; but more attention needs to be given to developing internal RED research capability. The appointment of a new Research Officer to a permanent RED position in July will offer a good opportunity to begin developing internal capability. Neither of the current RED research staffers will be eligible to apply for that position, because it requires a Master's degree in statistics. If a capable person can be found to fill that position (one of the project participant trainees with Master's degrees, perhaps) and if money can be found to provide that person with an assistant, the external evaluation entities may gain more time to assist in the development of RED's internal evaluation capability. It seems doubtful that at the end of the RETT II pilot phase RED, in the absence of further AID funding, would continue paying an outside agency for research services. The goal of institutionalization will be best served by developing internal RED research and evaluation capability over the remaining two years of the RETT II pilot phase, but meanwhile continuing to rely on CERID and on help from the IEES advisors to insure that research and development work remains adequate.

During the development of Pilot English I, formative evaluation consisted of an Observation Group that met at RED to audit programs, and a field observation system. Early on, the Observation Group was comprised of three groups of six Kathmandu area teachers or eighteen teachers in all, but the system gradually dwindled to three regular attendees. The Observation Group gathered every Friday at RED to preview the three lessons for the following week. Though the conditions were patently artificial--a group of learners, rather than a single learner, using the lessons in an urban office environment, with excellent radio reception--the device seems to have served the practical needs of the script development team.

The principal purpose of the Observation Group was to provide the RED staff, and the scriptwriting staff in particular, with regular opportunities to hear and see their own material in use. This sort of exercise is an important aspect of script development. It is impossible for the instructional scriptwriter to develop an adequate sense of basic script elements--timing, cueing, dialogue, the use of music and special effects, determining the length of response pauses--without regular opportunities for observation.

Field observations were of uncertain value by common agreement of both RED staff and the staff of CERID. Formative field evaluation took place in two extended rounds, one in the middle and one nearly at the end of the Pilot English I broadcast year. This was a serious weakness in evaluation design. Formative evaluation exists principally for the benefit of the materials designers and writers--in this case, the

scriptwriters. The scriptwriters need prompt, regular, and practical feedback; formative evaluation is of little use otherwise. Field observation should be redesigned. Rather than sending teams into the field for massive, irregularly spaced efforts, a continuing light schedule of observations should be devised that keeps rotations of single observers in the field constantly.

There are sensible arguments in favor of summative evaluation being conducted by an independent or quasi-independent agency such as CERID; but no matter how summative evaluation may be handled in the future, RED badly needs to develop its formative evaluation capabilities. Formative evaluation is an activity intimately related to materials development, without which the work of the Division cannot go forward.

There is an important omission in the evaluation component of the SPE cycle: the cycle makes no allowance for "backward revision"--for correcting produced programming based on the results of formative evaluation. "Backward revision" should be added as a line in the schedule following "Observation and Discussion." Tape editing and re-recording are simple matters technically, closely akin to the normal post-production process and within the present capacity of the studio team. Decisions about what should be revised in produced programming are a responsibility of the administrative staff of the script development team. In RED's case, this would be an editorial decision made by either the production coordinator or the script editor. Revising produced programming will, of course, add to the studio team's round of activities and will add another major item to the script development team's long list of responsibilities. Backward revision, however, is an important aspect of quality control and needs to be added to the SPE cycle.

Meanwhile, with concentrated applications of currently available technical assistance and training from IEES, RED should set as a goal the development over the current year of an internally administered formative evaluation system which will provide timely, regular, and practical program development information.

The expansion of RETT II into five new districts for the piloting of the revised English series will provide an opportunity to test the effectiveness of the supervision plan which will be implemented in the five new districts. Research should be carried out to compare the learning rates of participants who receive supervisor support and those who do not. It will be important during the coming evaluation period to determine if the additional expense of a supervisor support system is justified. Evaluation should also compare learning rates among participants by level of formal education and length of teaching experience. This is probably the last chance during RETT II to gather evidence about how effective education by radio is for teachers and which groups may benefit most from radio.

Recommendations

1. Following a review of financial and human resources, the evaluation committee needs to prioritize the activities outlined in the Integrated Evaluation Plan, prepare a cost estimate, and establish a timeline for carrying out high priority items.
2. The present multiple arrangements, for involving a variety of entities and advisors from outside the project, should probably continue indefinitely for as long as they are needed to ensure adequate evaluation activities. During the remaining life of the project, however, greater emphasis must be placed on developing internal RED

capability to carry out both formative and summative evaluation. This work can begin when the permanent Research Officer position is filled. At least one other person, perhaps on a daily rate basis, may be needed to assist the new research officer.

3. The contract of the Nepali IEES advisor should be extended, so that he can advise and assist the new RED research officer.
4. The contract of the Researcher/Education Systems Designer should be extended as long as necessary to ensure the integrity of the evaluation component. It is hoped that means will be found for him to shift more of his attention to research and evaluation. He also needs to place increasing amounts of responsibility for research and evaluation in the hands of his Nepali colleagues.
5. Standing plans should be vigorously implemented for using three groups of teacher informants to evaluate lessons and for regular field visits to learner households in Lalitpur. Observation experience is the cornerstone of staff professional development, for the scriptwriters in particular.
6. Evaluators should take full advantage of the coming pilot activities to compare learning among participants with and without supervisor support and to measure learning among participants with various educational and professional backgrounds. Determining the value and cost-effectiveness of a comprehensive supervisory/ support system is particularly important at this time.
7. Because the three entities involved in RED evaluation will all probably continue to participate in evaluation efforts for some time to come, the Team recommends that coordination meetings involving the IEES advisors, CERID, and the RED staff take place regularly at two-month intervals.

C. STUDIO TALENT

Present Situation

- Studio talent during the first RETT II operational year consisted of poorly paid young amateurs. Over the course of Pilot English I the stipend for studio talent has been 50 rupees (U.S. \$2.39) per script. As of this writing, the position of the RED administration is that in the coming production cycle the stipend will drop to Rs.30 per script.

Discussion

The performance of the studio talent in Pilot English I was so bad that it effectively neutralized the efforts of the other RED components. (n.b.: The word "talent," used to refer to studio actors, is standard usage in radio and television in the U.S., and is so used here.)

The faults of the studio talent have to do with the most basic tools of the actor's craft: coming in tightly on cues; presenting lively, believable readings; building and sustaining characterization; using to good effect the mechanics of voice pitch and register.

The talent's English articulation is likewise inadequate. Both instructions and practice material are often unintelligible. Since Pilot English I is an English second-language course, and learners use the radio voices as models for practice, the talent's English articulation must be clear.

The young studio performers are, of course, not personally to blame for any of this. They perform like amateurs because they are amateurs. The solution to the problem is either to hire English-speaking professional actors or to identify and hire gifted amateurs. With project or Mission support, RED must be prepared to spend what is necessary to hire the best talent available in Nepal, professional or amateur, to perform the RETT II revised English scripts. A standard fee for principal dramatic performers on Nepal Television is 500 rupees for production resulting in a half-hour of programming--generally a solid day's work.

Recruitment should be undertaken immediately at Nepal Radio and Nepal Television, and ads inviting actors to audition should be placed in the newspapers. Within the next six weeks, exhaustive formal auditions should be held and continued until the right people are found. Once found, they should be paid enough to keep them at work in the RED studio.

Payment of studio talent should probably not be made by the script, as it is now, but by the session. Payment by the script encourages hasty rehearsing. Contracts should not be negotiated with studio talent. Acting is trying work when taken seriously, good actors are inclined to be volatile people, and contractual commitments to actors can be troublesome.

Recommendations

1. RED should spend the money necessary to hire professional actors or very talented amateurs away from other jobs. It may turn out to be necessary to hire a mix of professionals and amateurs. Thorough auditions should be conducted continuously until good talent has been identified.

Note that, for Pilot English II, the Team recommends the use of a cast of only three people, lessening the difficulty of identifying people who can perform well in English. The Team further recommends that one of the three be a native speaker, which might further reduce the talent search and might also reduce costs if a volunteer or an RED technical advisor could be used for this purpose. (See Pilot English II, below).

2. RED should plan to pay 1,000 rupees or more total per full-day recording session for studio talent in order to bring about the recommended improvements.

D. PILOT ENGLISH

Present Situation

- Pilot English ("Radio Tuition") was completed during January 1987. The series consists of one hundred and seventeen 20-minute radio lessons designed for transmission three times weekly for 39 weeks.
- The Pilot English material conforms in design to the Interactive Radio Instruction (IRI) system, with particular reference to IRI design applications developed for the Radio Language Arts Project (RLAP)/Kenya.
- By general agreement within the RED staff, confirmed by early evaluation results, the technical quality of the radio lessons is inadequate.

Discussion

Instructional Design

The salient features of the IRI model are an intense cadence of pauses for active learner response to radio-delivered cues; a cueing system that depends on questions and answers, with many possible variations; immediate correction and reinforcement of responses; highly systematic design; and a segmented program format. Pilot English shows all these features and is in design terms a successful replication of basic IRI systems.

The system and order of presentation most commonly encountered in the Pilot English lessons, for one segment of listening-speaking practice, is as follows: First, semantic contextualization is provided either through the use of very short introductory dramatic material or by means of reference to the companion textbooks. The exercise is then described in English, described in Nepali, and modeled by radio voices. Learners carry out the exercise led by radio voices. A companion patterned drill is modeled and executed. The segment ends with a very short dramatic close, and a simple spoken transition leads into the next segment.

Reading practice is conducted using the textbooks for grades 7, 8, 9, and 10. Practice using a single passage is normally carried out across several days of lessons and as many segments, according to a fairly fixed skill/activity hierarchy. A typical sequence of reading activities applied to a single text (with variations and repetitions, and spread across several lessons) is as follows: Learners hear a radio voice reading the passage while they follow silently; read the passage aloud a sentence at a time after a radio voice; read aloud a sentence at a time with a correcting reinforcement, but with no preceding model; carry out the same activities silently; respond to simple content questions about immediately adjacent material; respond to questions after reading an extended passage; and respond to increasingly higher orders of questions culminating in questions that require the drawing of inferences or the formulation of opinions.

The breakdown of instruction for a single lesson is normally as follows: 9 minutes for reading, 2:15 for writing, and 5:00 for listening/speaking, including two, two-minute exercises plus a patterned drill.

Curriculum

The instructional master plan, or "Scheme of Work," for Pilot English I consists of 19 instructional "frames" based on the curriculum. The curriculum is aimed at providing a comprehensive review of English language skills based on an achievement test administered to teachers in the pilot districts. The result is a broad spread of material to be taught. Reading skills are aimed at the Grades 7-10 textbooks, but oral practice dips down as low as grade five. The multi-grade level of the target material often made it difficult to write cohesive scripts and sometimes resulted in confusion for the learners.

General Analysis of Script Quality

The Pilot English scripts do not adequately take the nature of the learner into account. This is evident in the general scripted tone of voice and in the choice and use of characters, settings, dramatic situations, themes, and music. Pilot English was for use by adult individuals in a nonformal home setting. In general, the dominant tone of voice in the scripts is child-directed. The standard program opener is a notable example. The opener is recorded over the sound of children's voices in a classroom and contains directions to listeners to respond aloud to a greeting addressed to them and to "sing with us." It seems doubtful that an adult nonformal learner would respond to an injunction to sing the program theme along with the radio voices. This all has the appearance of material aimed at groups of children in a classroom, rather than at adult individuals studying English by radio in the evening in their homes. Much of the dramatic and transitional material seems similarly conceived for children.

The continuing cast of characters for Pilot English is unwieldy. It consists of a four-person family and a good half-dozen secondary characters. The storyline--the daily life of a rural family, with episodes often focusing on the children and their chores and schoolwork--seems at once unnecessarily elaborate and not apt for adult listeners.

The transitional material in the Pilot English scripts is not well written. Transitions between segments are particularly important in segmented, team-written material of this kind. The transitions in the Pilot English scripts in general consist of two sentences spoken by a continuity announcer. The first is a flat summary of the activity just completed, and the second is an equally flat declaration about the next segment. The material seems pointless, and the conjunction of the two declarations is often incongruous. In many cases, the simple device of a musical "bridge"--a little snatch of music between the two declarations--would have eliminated the incongruity. A wide variety of common and very elementary transitional devices could have been used for continuity--simple running gags or running dramatic situations, for example.

Recommendations

1. The Evaluation Team concurs with the internal RED decision to completely redo the Pilot English series.

E. THE REVISED ENGLISH SERIES

Discussion

The project should direct the revised English series not only towards teachers but towards the general learner population as well. This should be accomplished by means of informational radio spots and perhaps eventually promoted on television as well.

Directing the lessons at a much wider audience should stimulate the work of the script development and studio teams and cause appropriate changes in the style and tone of the broadcasts. This recommendation is discussed in detail elsewhere in this report.

The Evaluation Team recommends a simplified continuing cast and setting for the revised English series and a general restructuring of program concepts aimed at developing material appropriate for the nonformal adult target audience. The team feels the program would be more effective and relevant if it utilized: 1) a simple three-person cast consisting of a native speaker and two adult advanced-intermediate Nepali English learners (a male and a female); and, 2) a continuing situation in which the setting is the radio studio, and the native speaker-teacher and Nepali learners are present together for the sake of conducting a lesson.

The studio setting is a classic radio device, useful for its simplicity and flexibility. There is nothing intrinsically drab in the studio setting, and nothing to prevent any imaginative flight, within the studio or in another imagined setting, of which the writers are capable. On the contrary, the openness of the setting lends itself to imaginative flexibility. The complexity of the dramatic situation is one of the principal problems with the Pilot English material. It is the conjecture of the Evaluation Team that unburdening the scriptwriters of all unnecessary apparatus may help them present instruction more clearly and also stimulate them creatively by giving them more room to let their imaginations roam.

There should be a radical change in the choice and use of music for the revised English series. If the choices are made carefully and creatively, music can achieve much of the needed enhancement in the polish and appeal of the radio lessons.

An attractive study guide to accompany the broadcasts designed for a general listenership should be piloted during 1987 for publication and sale beginning in 1988. The standard program opener and the standard program close should include direct information regarding the study guide and a bright, clear promotional appeal to the general radio listenership. This message can be revised and adapted as necessary for the permanent version of the series.

The Evaluation Team concurs with RED plans for a redirected instructional focus for the revised English series, to include addressing the grade 9 and 10 English curricula, teaching to the grade 9 and 10 textbooks, and revising the format to include post-broadcast work assignments.

An important note in this regard: CTSDC is currently revising the English textbooks. A new official English textbook series is scheduled for publication and mandated use beginning in 1989. If that deadline is met, the English series will become obsolete for high school students after only one or two years of use. It will still continue to be relevant for SLC repeaters for some years to come. This limitation on the lifespan of the series will be acceptable if by then the English series has proven successful. One year is time enough to establish unequivocal success. A five-year lifespan is normal for a successful instructional television school broadcast series in the U.S. By 1990, in any case, given successful institutionalization of RETT II, RED will be an operational distance education unit and will set to work on new radio material to accompany the new textbooks.

The Team recommends that broadcast of the revised English series not begin before June 1. The staff needs time to prepare carefully for this important effort. Long fallow periods, followed by bursts of crowded activity, appear to have been among RED's

problems in the past. If the Team's recommendation regarding program quality are accepted, the effort must begin with allowance of enough lead time to generate an acceptable product.

For the same reason--avoiding precipitous overextension of staff resources that would result in diminished program quality--the evaluation team recommends that the revised English series keep to the established three-lesson-a-week schedule rather than expanding to daily lessons as has been recently suggested.

Broadcast Length

The team recommends extending the length of the revised English series broadcasts from 20 minutes to 26 minutes and thirty seconds. The addition of 6:30 would mostly mean adding patterned, easily expandable material to the lessons, increasing practice time, and enhancing the instructional impact of the lessons without much risk of a burdensome increase in the SPE workload. 26:30 is the time radio Nepal recommends for a half-hour program designed to carry three minutes of advertising. The project is advised to leave time for advertising and to consider seeking partial sponsorship for the English series beginning in 1988. The cost of "commercial time" (prime time) on Radio Nepal, between 7:30 and 10:00 p.m., is 250 rupees per minute or 7,500 rupees for a half-hour broadcast. With three minutes of advertising, the cost of a half-hour broadcast drops to 3,500 rupees.

The revised English series should be piloted during commercial time, and the English course in its final version should continue on commercial time. The learner audience for Pilot English was heavily in favor of receiving the broadcasts later in the evening (see Appendix B). In general, mid-evening prime time is ideal for instructional broadcasting for nonformal home use. Advertising would defray the added cost of commercial time. Carrying advertising, of course, presupposes that the project will create programming of high enough quality to attract not only a wide voluntary listenership but commercial sponsors as well.

The Evaluation Team sees nothing in the notion of commercial sponsorship that runs counter to the project's educational purposes. Under Radio Nepal's commercial policies, RED and Radio Nepal would collaborate in seeking sponsors, but RED would, of course, exercise control over sponsorship and could veto inappropriate sponsors. The Team also notes that the notion of sponsorship is in harmony with current trends in AID policy regarding the encouragement of private sector involvement in development. Radio Nepal has informally agreed to make the 8:15 to 8:45 time slot available for the revised English series.

Technical Assistance

The task undertaken in Pilot English was by no means easy: the application of the IRI system, for the first time, to the English second-language needs of adult learners in a nonformal context. Though the results are mixed, it was an intelligent first effort. What is now needed is a revision based on the first year's mistakes. Given steady MOEC support and modest but essential continuation of technical assistance, the revised English series can be of very high quality, and the staff can develop fully its instructional radio capability.

In this regard, the Evaluation Team recommends that the unfilled two-year technical advisor position be filled not by a mathematics education specialist, but by an instructional radio writer/producer with experience in second-language instruction. The

team further recommends three person-months of technical assistance during the latter half of 1987 to assist in the development of a study guide to accompany the revised English series.

Recommendations

1. The revised English course should feature a simplified setting and a continuing cast of three characters: a native English speaker and two advanced-intermediate Nepali students of English.
2. Pilot broadcasts of the revised English series should begin in June 1987.
3. In the design and execution of the revised English series, the staff should consider the needs not only of the original learner-audience of teachers but also of the general listening public. Changes in the overall concept, design, and tone of the revised English series should reflect adult interests.
4. During 1987 RED should pilot-test an attractive study guide to accompany the revised English series, for the use of the general listening public, for publication and sale beginning in 1988.
5. The unfilled technical advisor position should be filled by an instructional radio writer/producer who is familiar with the interactive radio system and who has experience in the broadcast presentation of English second-language material. Three person-months of additional technical assistance should be provided during the latter half of 1987 to assist in the development of a study guide to accompany the revised English series.
6. The revised English broadcasts should be lengthened to 26:30 to allow three minutes for commercial sponsorship. The lessons should be broadcast on the 8:15 to 8:45 p.m. commercial timeslot, and commercial sponsorship should be sought for the series beginning with broadcasts of the final version of the series in 1988.

F. MATHEMATICS

Discussion

Given the importance of maintaining uniformly high standards of program quality, delaying the development of a mathematics course for a year appears absolutely necessary. Trying to generate a math and English course at the same time over the coming year would result, at best, in the generation of two mediocre series. Klaus Galda (RETT II Consultant Report, 1985) argues cogently that, if under-SLC teachers' needs in mathematics are to be addressed, the project should develop an intensive two-year upper level course consisting of about two hundred 30-minute programs. Present RETT resources, however, are insufficient to even contemplate developing a course of the kind Galda recommends.

There are two other possibilities for a useful mathematics series. One is a mathematics series for teachers focusing on the content of grades 1-5 and on the methodologies needed to teach that content. Such a series would have the advantage of honoring the original RETT I mandate and replacing the original RETT materials with an extended and updated broadcast series.

Another possibility is the development of a radio mathematics series for children, for classroom use in grades 1-3. Such a course could be adapted from existing materials of proven excellence, which have been used successfully in Thailand, Nicaragua, and the Dominican Republic. The lessons could be piloted on medium wave in schools in the Kathmandu Valley. Such an undertaking would be relatively easy to accomplish and would stand a good chance of succeeding. It would also be of interest because it would serve as a low-risk, low-cost test of the feasibility of classroom broadcasting in Nepal.

Of these three possibilities, the Team finds the third--a limited pilot of a three-year radio mathematics course for classroom use with children in grades 1-3--the most promising. This option is not put forward as a positive recommendation, however, because the Team feels strongly that any such decisions must be based on a careful needs assessment and on an analysis of staff capabilities early in 1988 in consultation with a technical advisor in mathematics education.

A three-year pilot program, beginning in 1988, with 1988 for startup activities and the three succeeding years for pilot broadcasting, would extend through 1991--two years beyond the RETT II project end date. This assumes, of course, that full institutionalization will take place. Given successful institutionalization, this three-year pilot effort would provide a transition from RETT II through the first two years of operation of the fully institutionalized Radio Education Division.

Recommendations

1. The design phase of the RETT II mathematics component should be delayed until early 1988.
2. At least three months of technical assistance should be provided early in 1988 for staff training and for the development of the instructional design for the mathematics course.
3. Among other options, and on the basis of a careful needs assessment, RED should consider using its principal resources between 1988 and 1990 for the development of a three-year pilot primary level mathematics series on the Thailand/Nicaragua Radio Mathematics model for piloting in the Kathmandu valley on medium wave. This effort would make use of specialized staff training developed during the undertaking of the teacher training mathematics course; would serve as an element of feasibility testing in the development of instructional radio for classroom use in Nepal; and would serve to bridge and broaden RED functions and capabilities, facilitating the Division's transition into full institutional operation.

G. THE IMPORTANCE OF UNIFORMLY HIGH PROGRAM QUALITY

Discussion

If institutionalization is to succeed, production quality must be raised to uniformly high standards beginning with the revised English course and sustained thereafter. This need is the principal technical finding of the Evaluation Team. The Team recommends that immediate, marked improvement in program quality become the RED staff's principal goal for the duration of RETT II. In technical terms, low standards of broadcast professionalism can reduce the value of programming of even very solid instructional design by garbling or distorting design intentions.

RED must improve the quality of its programming in order to survive. To sustain itself permanently, RED must build a constituency of supporters not only among its learners and elsewhere within education but in the general public. RED uses the public airwaves. In Nepal as elsewhere in Asia, Africa, and the Subcontinent, the British model of central broadcast regulation has resulted in a massive audience listening to a few centrally-managed stations. This fact heightens the professional and ethical obligation of broadcasters to produce listenable material. If RED's material is amateurish, not just the formal learner population and policymakers, but the Nepali listener population at large, will turn from RED as an institution unworthy to have access to the airwaves.

RED enjoys a constituency-building advantage available to few other enterprises of any kind: it is in the business of making radio programs. Radio is a powerful instructional technology because it accesses a massive audience and also because its particularly compelling subjective character can catch and hold people's attention with great force. These are precisely the strengths of radio which RED must bring to bear both in the service of its educational mission and in the interests of building a broadbased and abiding constituency.

Recommendations

1. A long-term (two-year) technical advisor must be made available to the project beginning as soon as possible. The advisor should be an accomplished instructional radio writer-producer with experience in English second-language broadcast instruction. The advisor's responsibilities would include:
 - closely supervising the scripting of the revised English course and personally writing as much of the programming as necessary to ensure its uniform high quality
 - personally rehearsing and coaching the studio talent as necessary and closely supervising the production of the revised English series programming
 - assuming sign-off on all scripts and recordings for the duration of the project in the role of Executive Producer pro tem.
 - completing the training of the script development and production staffs.

- coordinating the process of identifying and training the key RED technical management people: the Script Editor, the Production Supervisor, and the Studio Producer.

H. MISCELLANEOUS NOTES ON TECHNICAL MATTERS

Broadcast Reception

Radio Nepal broadcast the first Pilot English lessons on the 90-meter shortwave band only. After many complaints from RETT learner-participants about the quality of reception, the broadcasts were moved to the 60-meter band, but learners still complained about poor reception. Participants at Nuwakot complain of a hum that makes the transmissions very difficult to understand.

The reception problem needs to be addressed this year. Instructional programming that can't be heard can't be effective--language programming in particular. A separate study guide with topics and assignments for each program would compensate in part for the reception problems, but the project cannot afford to leave the reception problem itself unaddressed.

It appears that shortwave is simply too quirky for Nepal's extremely rugged terrain. In fact, this is Radio Nepal's own conclusion. Clear universal coverage is a Royal mandate, and Radio Nepal is doing what it can to achieve coverage with the equipment it has now; but the areas covered only by shortwave cannot receive transmissions dependably or predictably. Radio Nepal has an ongoing survey system which it uses to monitor shortwave reception and modify transmission patterns as conditions change. Radio Nepal transmits at any one time on two of three shortwave frequencies: 41 meters, 60 meters, and 90 meters. Transmission is generally on 41 and 60 meters during daylight and 60 and 90 meters at night. Reception patterns also vary over the course of the year, often unpredictably, and Radio Nepal also varies its transmission patterns seasonally in an effort to respond to apparent seasonal variations. But the plain fact of the matter is that shortwave reception in Nepal is simply not dependable. For this reason, Radio Nepal's goal is now complete conversion to medium wave.

The Central and Western Development Regions, encompassing 55% of the population, are covered clearly on medium wave. The Midwest and Far Western Regions sometimes receive Radio Nepal brokenly at night on medium wave. Radio Nepal is a financially self-sustaining entity and cannot at present contemplate investments in transmitters. Two more hundred-kilowatt medium wave transmitters, one located in the Eastern Region and one in Midwestern Province, would cover 90% of the population with clear reception. Two or three strategically placed ten-kilowatt relays would raise coverage to near 100%. The frank hope of the Radio Nepal staff is for international donor support in achieving comprehensive medium-wave coverage.

It is probably a good idea for RED to begin limiting pilot work strictly to the Central and Western Regions, where clear reception in medium wave is guaranteed. Meanwhile, Radio Nepal will agree to carry RETT II programming simultaneously on all medium and shortwave bands if it is convinced that the programming is aimed at a much larger audience than under-SLC teachers only and would not charge more for simultaneous transmission on all bands. Radio Nepal would consider an intended target audience of all SLC takers--not just teachers--as sufficiently large to justify simultaneous transmission on all bands.

Recommendations

1. RED should probably assume that learners in the Eastern, Midwestern, and Far Western Development Regions cannot receive dependable radio education services as long as those areas are not covered by medium wave.
2. The project should limit future pilot activities strictly to the Central and Western Regions.

Length of Broadcasts and Broadcasts per Week

The survey of Pilot English and RETT II learner-participants (see Appendix B) shows that a majority thought the 20-minute Pilot English radio lessons were too short. Ninety-five percent said they preferred broadcasts at least 30 minutes in length. Most respondents also preferred more than three broadcasts weekly; 63% wanted five or more broadcasts per week.

The Team's recommendation is a general pattern of three broadcasts per week. At least during the coming pilot year, the project could experiment with increasing broadcasts to four per week near the end of the course as the date of the SLC approaches. Doing this would depend, of course, on when the revised English broadcasts get underway. The Team's recommendation for program length is 26 minutes 30 seconds. These recommendations are discussed in detail in Section E: The Revised English Series.

Broadcast Time Slot

Pilot English was broadcast three times weekly from 6:40 to 7:00 p.m. on Sundays, Tuesdays, and Thursdays. Most Pilot English learner-participants say they would have preferred broadcasts after 7:00 p.m., so that they could finish their other work first. Of the participants surveyed, 66% preferred the broadcasts after 7:00 p.m. while 26% were satisfied with the 6:00 to 7:00 time slot. Based on its discussions with Radio Nepal personnel, the Team recommends that the revised English series be carried between 8:15 and 8:45 p.m., the only appropriate time slot now available after 7 p.m..

Radio Nepal's Technical Needs

The RETT projects have provided Radio Nepal with a 100-kilowatt shortwave transmitter, a studio-to-transmitter link, and other equipment. Under RETT I, three Radio Nepal engineers were sent to the U.S. for Master's programs in engineering and one was sent for a three-month program. Two of those engineers are still working for Radio Nepal. One of them is the Chief Engineer.

Radio Nepal also received a \$50,000 grant to form a training unit within the institution. That unit is now being managed by a USAID/N Personal Services Contractor. The unit has conducted "A" level training for studio technicians. "B" level training for radio engineers is scheduled to begin on Monday, March 9. With the joint cooperation of AIBD and Radio Nepal, this unit has also conducted training programs for Radio Nepal technicians on studio and transmitter operation. Two of Radio Nepal's senior engineers will visit the U.S. in April and May for advanced training at sites in Baltimore, Atlanta, and Washington, D.C.

Radio Nepal's Chief Engineer has indicated that Radio Nepal has no major additional training needs requiring outlays of project resources. The team, therefore, recommends no further training for Radio Nepal staff beyond that already planned.

V. INSTITUTIONALIZATION OF THE RADIO EDUCATION DIVISION

A. PRESENT SITUATION

- Under the RETT I and II programs, new office facilities have been constructed and equipped for RED, including a new recording studio. Following the completion of current renovations, the physical plant will be more than sufficient to meet RED's present needs.
- Only 6 of the 20 people who received overseas training during RETT I are working on RETT II. Of the 45 temporary staff positions sanctioned by the MOEC, 41 have been filled. Most of the current professional staff have been working with the foreign technical advisors for over two years.
- The GON has recently agreed that 20 permanent positions be created for RED. This represents a major step in the process of the institutionalization of RED from a "project" to a full-fledged government unit. (RED and USAID/N had requested that 46 permanent posts be created, but the GON is under heavy pressure to decrease the size of its bureaucracy rather than increase it. The creation of these posts in the face of this pressure must be seen as a positive step.)
- The MOEC has recently made the decision to move RED from its present position under CTSDC (Curriculum, Textbooks and Supervision Development Center) to the Educational Administration Division and to merge it under the Training Sub-Division which currently has five permanent positions. The rationale for the move appears to be to centralize the teacher training activities of the MOEC.
- The 20 permanent positions for RED will possibly be filled by July 1987 primarily through the actions of the Public Service Commission. Only five of the 20 people currently holding professional posts with RED are eligible to be directly appointed to new permanent positions.
- The transfer of RED to the Training Sub-Division would mean that RED would be limited to teacher training activities only. The responsibility for in-school broadcasts and other types of educational radio programs would remain with the Audio-Visual Division of CTSDC which has far less capability than RED in educational radio and has, in fact, done no new in-school programs for the last two years.
- Because the merger announcement was only two weeks old at the time of the Team's visit, there were no details on how this merger would take place, whether the two divisions would actually merge or would remain separate entities under one name, and who would be the chief of this new entity.

B. DISCUSSION

While it is commendable that the MOEC is giving attention to the streamlining of its bureaucracy and the consolidation of its resources, the evaluation team feels that the merger between RED and the Training Sub-Division is not the most efficient use of the MOEC's resources in radio education. There may be some minor advantages to this merger, but there are some major disadvantages (see chart on following page).

Over the last eight years the MOEC has created in RED its own capability to design, produce, and deliver educational programs for teacher upgrading. While RETT I and RETT II have concentrated on teacher training efforts, the expertise developed at RED can be applied to a wide range of educational needs such as in-school broadcasting and adult education, as well as teacher training. RED presently stands as the MOEC's major source of expertise for radio education. Because of this, it should be placed in such a way administratively that its expertise can be used for a wide variety of educational radio needs of the Ministry. This could best be accomplished by merging RED with the other MOEC division involved in radio education--the Audio-Visual Division.

As shown on the staffing chart, the Audio-Visual Division has 16 permanent slots, many of which are similar to positions needed by RED. Although RED has the better capacity to develop radio education programs, the Audio-Visual Division has the responsibility for in-school broadcasts and other uses of educational radio. In fact, however, they have not produced any new programs for in-school broadcasts for several years. This evaluation team strongly feels that it would be highly advantageous to the MOEC if RED were merged with the Audio-Visual Section for the following reasons:

1. Cost-Effectiveness:

- a. combining the use of radio production facilities so that the best facilities are used intensively, thus justifying the investment;
- b. combining staff so that there is little need for temporary help and so that staff members' time is efficiently used;
- c. reducing the amount of office space needed;
- d. efficiently using staff time on a year-round basis so that the maximum number of products are produced using the fewest number of people.

2. Improving Quality of the Product: by concentrating all of the human expertise of MOEC in radio education and its best facilities, the Ministry will produce more and better products. The Audio-Visual Section can also provide RED with the capability of producing support materials for learners.

It would be more effective if the Ministry considered merging its groups on the basis of expertise and facilities (radio education) rather than on the basis of current programs (i.e., training). The radio education resources of MOEC should be looked upon as resources to be used by all divisions. Although RED has concentrated on teacher training for most of its existence, it does not mean that it should continue to focus solely on teacher education. Radio can be a powerful instrument for a range of uses and target groups and should not just be utilized for teacher training.

Advantages and Disadvantages of RED Merger Options

OPTION	ADVANTAGES	DISADVANTAGES
A. RED and Training Division	<ol style="list-style-type: none"> 1. Consolidating of MOEC functions for noncredit teacher training 	<ol style="list-style-type: none"> 1. RED capability is limited to teacher training 2. MOEC radio education functions divided between CTSDC and Training Subdivision 3. RED may no longer be able to personally support its own budget requests 4. RED separated from direct link with Supervision Division 5. Physical distance between Training and RED will inhibit communication 6. Poor match between posts in Training and RED posts and needs
B. RED and Audio-visual	<ol style="list-style-type: none"> 1. MOEC studio facilities united under single management 2. MOEC radio capability and functions consolidated in one unit 3. Good match between 16 A-V posts and 20 RED posts 4. Better RED control over budget process 5. Improved cost efficiency and product quality 6. A-V expertise can support radio programs 7. Flexibility to use radio for in-school, training and adult education activities 8. RED maintains direct link with Supervision to develop distance education support network 9. No need to construct new studio for A-V 10. Close physical proximity of RED and A-V enhances communication/cooperation 11. Possible consolidation of A-V staff into new RED building 	<ol style="list-style-type: none"> 1. MOEC teacher training functions remain divided between Training and RED

C. RECOMMENDATIONS

1. Special attention has to be paid to the issues outlined in the staffing section of this paper. If the staffing and leadership issues are not successfully resolved, it will not matter where RED is located, because it will be an ineffective institution.
2. The Radio Education Division should administratively evolve into an independent Distance Education Center servicing all of the radio education needs of the MOEC through a two-step process:
 - a. The current merger with the Training Sub-Division should be carried out with the five permanent posts and personnel of the Training office being incorporated into the RED Sano Thimi office, thus creating a Distance Education and Training Unit.
 - b. As soon as possible, this unit should be merged with the Audio-Visual Division of CTSDC to create a independent Distance Education Center. This center would provide:
 - educational radio and audio-visual services for all of the MOEC
 - in-school and regular broadcasts for all sections of the MOEC
 - cost-efficient use of studio equipment and personnel
 - high quality products because of the efficient concentration of human and physical resources
 - cost-savings to MOEC due to consolidation of functions, expertise, equipment, and personnel into one unit that serves all parts of the MOEC

VI. STAFFING

A. PRESENT SITUATION

- Forty-five temporary positions are sanctioned for RED by MOEC and have to be renewed each year (see following chart).
- Forty-one of these 45 positions are presently filled (mostly by personnel with temporary appointments in MOEC, although some are permanent employees of MOEC).
- Of the 20 people sent for overseas training under RETT I, only 6 are working on RETT II. The USAID training plan for staff members has been in abeyance pending approval of the permanent positions. In-country training workshops for scriptwriters and evaluation personnel have been held.
- Four people have been sent overseas for Master's degree training. Two have already returned. The other two will return in 1988. One of the returnees is a CERID employee who is already back at work. The other returnee is expected to rejoin RED. It is expected that the other two people will also work with RED after their return, but their present appointments are with CTSDC.
- MOEC has received permission to create 20 new permanent positions for RED. Their original request had been for 46 posts. At present it is not known if the GON will agree to the continuation of any of the temporary posts.
- MOEC has ordered that RED be merged with the Training Sub-Division which has 5 permanent positions including a Class II position that could be used for the director slot. The 20 new RED positions do not include a position for director. This merger will move RED out of the sphere of CTSDC and into the Educational Administration Division. There is no current information on how this merger will be accomplished nor on who will head the merged groups.
- Due to the uncertainty about the future and the troubled history of the project, staff morale is extremely low.
- Without some forceful action by the RED Chief and radio education supporters in the Ministry regarding the selection of people for the newly-created permanent positions, it is altogether possible that few of the present staff members will be working with RED after July 1987.

RED STAFFING PLAN AND STAFFING OPTIONS

POSITION	TEMP. APPROVED	PRESENT STAFF	NEW POSTS	MISSING POSTS	AUDIO-VISUAL	TRNG POSTS
1. Chief	1	P	0	-1	1	1
2. English Spec.	2	PT	1	-1		
3. Nepali Spec.	2	PT	1	-1		
4. Science Spec.	2	PT	1	-1	2	
5. Math Spec.	2	PT	1	-1		
6. Soc.Studies Spec.	1	T	0	-1		
7. Health Ed. Spec.	1	T	0	-1		
8. Education Spec.	1	T	0	-1		
9. Exam.-in-Charge	1	T	1	0		
10. Researcher	2	TT	1	-1		
11. Prod.-in-Charge	1	P	1	0	1	
12. Phys. Ed. Spec.	1	T	0	-1		
13. Producer	2	P	1	0	2	
14. Jr. Technician	2	TT	2	0	2	
15. Illustrator	2	T	1	0	2	
16. Section Officer	1	T	1	0		1
17. Accountant	1	T	1	0		
18. Store Keeper	1	T	1	0		
19. Admin. Asst.	1	T	0	-1	1	1
20. Mimeographer	1	T	0	-1		
21. Typist	4	TTT	1	-2		1
22. Driver	2	TT	1	-1		
23. Peon	4	TTTT	2	-2	2	1
24. Guard	3	TTT	0	-3		
25. Gardener	1	T	0	-1		
26. Cleaner	2	TT	0	-2		
<u>New Posts</u>						
Reporter	0	-	1			
Magazine Writer	0	-	1			
<u>Audio-Visual Posts</u>						
Visuals Chief	0	-	0		1	
Projectionist	0	-	0		1	
Librarian	0	-	0		1	
TOTALS:	44	41	20	-23	16	5

T = temporary
P = permanent

TEMP. APPROVED: temporary posts approved for RED by MOEC for 1986-87
PRESENT STAFF: present staffing pattern of temporary and permanent MOEC employees
NEW POSTS: new permanent MOEC positions created for RED
MISSING POSTS: difference between present staff and 20 new posts
AUDIO-VISUAL: permanent positions in Audio-Visual Division
TRNG POSTS: permanent positions in Training Sub-Division

DISCUSSION

The creation of 20 permanent positions by the Government of Nepal is a powerful sign that the Government is committed to the long-term use of radio for social and educational development and is willing to institutionalize the functions of the Radio Education Division. The creation of these posts has been under discussion since at least 1978 so this final decision represents a great success for RETT II in convincing the Government of the value of a radio education capability. Although only 20 out of the requested 46 posts were sanctioned, it is important to remember that the GON is under great pressure to halt expansion of the government and even to make reductions in the total manpower. In this context, the creation of 20 positions must be seen as a very positive step.

The creation of these permanent posts and the merger with the Training Sub-Division mark the watershed point in the development of RED. There is great potential, but there is also potential danger. If the permanent positions can be filled with the best available people, if the merger with the Training Division can be carried out in a way to strengthen RED, and if a forceful and committed leader is appointed to head the merged units, then RED will be well-placed to make a highly positive contribution to educational development in Nepal. There is the danger, however, that many of the positions will be filled by inexperienced people who are just seeking permanent posts in the Kathmandu Valley and are not particularly interested in radio education. RED has already had a case in which someone has been transferred into an important post in RED even though he was unqualified for the position. To a certain extent, the RED Chief can propose required qualifications for each of the posts, especially for the 10 professional positions, but he must also launch a lobbying effort to ensure that RED gets the people it needs.

The merger with the Training Sub-Division has the potential of strengthening RED if its positions complement the needs of RED. Because there is no Class II director-level post created for RED, the Class II post in the Training Sub-Division will be the senior position for the merged divisions. At present an official is occupying that post who has little knowledge and perhaps no interest in radio education. It does not appear that he would be an effective leader of the merged divisions. As a new and innovative program, radio education needs dynamic and creative leadership. It needs a person with experience in education and administration, an interest in radio education, and a willingness to learn about approaches to radio and distance education. Such leadership will be crucial to the continued development of RED as an important force in the Nepalese educational system.

If the proper type of leader is not appointed to head the radio education-training divisions and if the 20 positions are not filled by qualified and hardworking people, the future of radio education in Nepal will be very dim for the foreseeable future. USAID/N should then reconsider its commitment to the support of the development of radio education and look for other areas where its investment would have a higher return. On the other hand, if the MOEC is able to fill the leadership post and the other positions with capable people, USAID/N should strongly consider continuing support to the project in redefining its directions, training its staff, and developing new types of programming for new types of audiences.

RECOMMENDATIONS

1. The RED Chief should move quickly to exert as much control as possible over the process of filling the 20 permanent positions by:

- a. strongly recommending to the Secretary in writing that present permanent employees of RED who have done work of a high standard and who qualify for the new positions be directly appointed to those positions without having the jobs filled by the Public Service Commission;
 - b. strongly recommending to the Secretary that permanent employees who do not meet the standards of the job be posted outside RED;
 - c. quickly completing job descriptions for the positions to be advertised and sending them to the Public Service Commission as soon as possible. The job descriptions should be carefully written within established guidelines so that only the most appropriate candidates can apply.
2. For fiscal year 1987-88 the RED Chief should consider making an effort to ensure that RED has the manpower it needs to fulfill its responsibilities by:
- a. requesting a continuation of 26 of the present temporary positions or however many are needed considering the merger with the training division;
 - b. requesting sufficient budget to hire consultants or other temporary personnel to fill the manpower gap.
3. Given the short lifespan of the project following the July 1987 appointment of the permanent staff and the amount of work to be accomplished, training efforts should be directed at on-the-job types of activities that will not significantly interrupt the completion of project work. No foreign training is recommended until 1988.

VII. INSTITUTIONALIZATION AT THE REGIONAL AND DISTRICT LEVEL

PRESENT SITUATION

- The District Education Officers of the first five project districts have been included in the planning of present RETT II activities and have even attended a program at RED where they made their own recommendations for improvement of the program. Four of their recommendations have already been acted upon:
 1. use of a selection process for enrolling RETT participants
 2. placing of a radio cassette player and copies of all broadcasts at each DEO
 3. provision of TADA (Travel Allowance - Daily Allowance) from RED for supervisors to make visits to RETT participants in their area
 4. provision of radios for RETT supervisors.

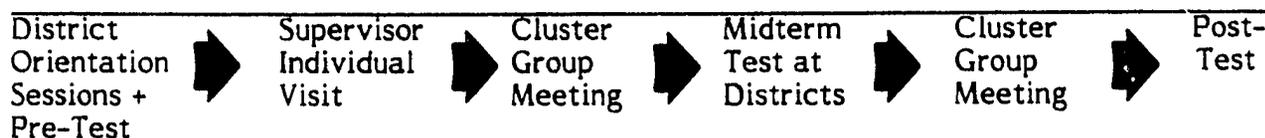
Four suggestions are included in plans for the second pilot phase:

1. organization of contact sessions for "clusters" of teachers twice during the radio course time as well as one individual visit by a supervisor to each learner
2. one supervisor given the responsibility for supervising the RETT participants in their district
3. supervisors reporting to RED on a regular basis
4. training for the DEOs and supervisors.

Other DEO recommendations are under consideration, including:

1. mobilizing headmasters and others to support the learners
 2. providing some financial support to the DEOs for postage and stationery
 3. providing certificates to the teachers who complete the RETT program.
- During the first Pilot Phase, the supervisors did not visit the teachers due to the lack of funds for traveling. Their supervision allowance of 33% of salary was cut by the government; however, RED did train one supervisor from each of the five project districts in the basics of the RETT approach and the need for supervision. For the second phase of the Pilot English Program, RED plans to implement the following schedule in all of the 10 districts:

Contact Sessions With Participants



RED has recently sent Rs.2,500 to each of the first 5 districts to be used for supervisor travel to visit RETT participants. (This money will have to be spent before the end of the fiscal year on July 14, 1987.)

DISCUSSION

It is vitally important that RED continue to work to build a distance education support system that reaches to the local level and facilitates implementation of the programs and the learning of participants. Given the logistical challenges of Nepal's terrain and the limitations in numbers of RED staff, it is essential that RED take advantage of the existing MOEC supervision structure that reaches right into schools and teachers' homes. It is also essential that the MOEC continue to develop the skills of local supervisors and the range of services they are able to provide to teachers in the field, and that it develop a workable model of distance, in-service training that it can use for all its personnel. The Supervision Division, especially through its offices at the district level, can play a crucial role in:

- enrolling participants in radio programs
- assisting in the testing of participants
- providing supervision and support to program participants
- providing feedback to RED on learner problems and the effectiveness of radio programs
- distributing radios and learning materials
- assessing the need for other types of radio programs.

An isolated teacher with little experience with distance education and self-study and with few resources, many distractions, and limited incentives cannot be expected to make significant progress in a long-term distance education program without some degree of direct support and individual attention. The learner has to feel that he is not alone; that there are people who want to see him succeed and opportunities for him to seek guidance and moral support. Millions of self-study books are sold in the U.S. every year, but it is doubtful that many people (educated people with good health, leisure time, a quiet study place, and plenty of learning resources in the local community) complete their study and achieve even a minimum degree of competence in the subject they are interested in, whether French or knitting. The village teacher needs as much support as possible to help him with his problems and to encourage him to persevere in his studies and to devote the necessary time to ensure success. The radio broadcasts themselves are not enough to ensure learning. The teacher must become intellectually involved with the material. In addition to supplying content information, explanations and practice time, the radio lessons provide the learner with a pacing mechanism that encourages regular study habits. By giving the learner homework assignments, the radio lessons can also encourage the learner to spend time outside of the radio broadcasts for study. Periodic visits by district supervisors can add a human face to the program and another impetus for sustained study. The supervisors can also organize periodic meetings of local study groups where teachers can come together to share experiences, help one another, and renew their commitment to the program.

A good supervision/support system should produce a lower dropout rate and higher average achievement among its participants. The second phase of the pilot English program should provide RED and CERID with the opportunity to document this.

Because of the importance of the work of Supervision Division personnel to the success of the RED programs, RED needs to continually look at ways in which it can encourage and reward the participation of those personnel in RED programs. Since these people hold the formal responsibility for assisting all teachers, not only RED ones, there have to be special incentives to help them give the needed attention to RED participants. The present strategy is to identify one supervisor per district who will

receive special training as a RED supervisor and the use of a project radio to follow the broadcasts. Concerns have been expressed about the viability of this approach given the fact that supervisors generally divide the district into sectors so that any one supervisor does not need to visit teachers in all corners of the district. Another concern is that supervisors are often transferred from one district to another. Thus, there is the possibility that the RED-trained supervisor in a district might be transferred to a non-RED district. At this moment, however, it is not possible to train all of the supervisors and to provide them all with radios. The important thing at this point is to energize this supervisor network in support of RED programs.

The recent decision to provide the district education officers with TADA for RED purposes was very important. RED should also develop a set of instructions for field trips by supervisors and a short report form that serves to document what they did and what they learned in the villages. RED should also consider other ways in which they can stimulate supervisor interest in RED programs like additional honoraria or prizes for the supervisors in the districts where learners show the most improvement. Perhaps the radio programs themselves can occasionally take note of the work of the supervisors in some way.

Given RED's direct link with the DEOs and to keep an already complicated system as simple as possible, there does not seem to be a major role for regional education offices in the direct operation of RED programs. If RETT II is launched on a nationwide basis, it may be necessary to institute supervisor training on a regional basis with the direct support of the regional education offices. These offices should be informed of all RED activities occurring within their jurisdiction and the RED Chief may wish to brief them on RED activities on an annual or semiannual basis, but it would be too cumbersome to make them part of the line of operations or the main conduit of information between RED and the districts. RED should keep itself informed of any regional efforts to conduct training programs in case it wishes to take the opportunity to provide the supervisors with additional training on radio education projects. RED should also work with the regional offices to ensure that its trained RED supervisors are not transferred to non-RED districts during the implementation of RED programs.

RECOMMENDATIONS

1. RED should continue to implement the steps it has already taken and strongly pursue the goal of constructing a distance education support and supervision system for RED program participants. These steps include the training of supervisors and DEOs and the financial support of RED supervisory activities.
2. Money for field supervision should be allocated for the fiscal year 1987-88. RED should outline the requirements for its use by the DEOs, a time schedule that should be followed for field visits, and a reporting system to document whom the supervisor has seen and what he has done and learned.
3. The supervisors need to be trained by RED staff on their role as RED facilitators and supervisors, the level of support they can expect from RED, and the details of the RED program.
4. The DEOs should be informed of the responsibilities of the RED supervisors, their instructions and work plans.

5. RED should explore ways in which to maintain and improve the performance of the supervisors through such means as an honorarium, additional training, special certificates of recognition, prizes, special broadcast programs, etc.
6. RED should explore ways of utilizing the skills of local secondary school teachers and headmasters in support of student learning. The Student Study Guide should advise RED students to approach these people for help. RED may consider sending a letter to all headmasters in the target districts requesting their support and suggestions. Perhaps certificates can be issued to those teachers or headmasters who provide help to RED participants.

VIII. INCENTIVES FOR LEARNERS

A. PRESENT SITUATION

- Unlike the RETT I teachers, the RETT II teachers will not automatically receive an increase in salary following their successful completion of the RETT II course. Their only salary increase will come if the program helps them to pass the SLC.
- Most of the teachers in the RETT II program are in temporary positions. They need to pass the SLC in order to become permanent. This is the main attraction for them to join any course that prepares them for the SLC.
- RETT II teachers are allowed to purchase a radio from RED for Rs.500. The market price of that radio is Rs.1100. The subsidized radio is a strong incentive for joining the program--not necessarily for completing the course.
- The participants appear to have strong self-motivation to learn. Seventy-six percent of the 126 English Tuition candidates surveyed wanted to have broadcasts more than three times a week; 23% were willing to have them seven days a week. Ninety-five percent wanted the programs to last at least 30 minutes. On average the participants said that they could spend 37 minutes a day four days a week in self-study outside of radio time. (It should be noted that many of the participants went through the RETT I program of one hour broadcasts five days a week.)

B. DISCUSSION

There are two main incentives for learners in the RETT II program: (a) subsidized radios, and, (b) an opportunity to prepare for the English section of the SLC--the section that is failed by 82% of this group. There is no direct incentive that rewards their successful completion of the RETT II program.

Most of the participating teachers in this program are temporary but trained. Their main problem is getting permanent status. Any program that does not help them to become permanent seems fruitless to them, especially since they have already achieved trained status and the extra allowance this status brings.

Discussions with a number of teachers in Nuwakot revealed that the program is not helping them very much to pass the SLC. Many of them have to do the SLC in seven or nine subjects, and the English language tuition course is not enough to help them with the large learning task they face in all of those subjects. Many of them feel that they would be able to pass the SLC in all subjects if they could hire teachers for private lessons for six or seven months. The radio broadcasts in English over a period of 10 months will only help them a little.

The low English level of many of the teachers has created another motivational problem. Sixty-four percent have great difficulty understanding the reading materials, and 79% find the dialogues hard to understand.

Those who have completed the Pilot English program of 117 lessons and attended the post-test do not know what the program is for, what their role is in the next broadcasts, and what rewards they will get after passing the post-test.

In Nuwakot recently, less than 70% of the enrolled teachers appeared for the post-test for the English tuition program. There is no real incentive to do so. Other districts had better attendance rates, but the Nuwakot example serves to illustrate that there is no mechanism or reward system for holding people in the course and through the post-test. We know that people buy the radios and enroll in the course; however, a lack of field supervision and regular contact prevents the project from knowing how well the participants are following the broadcasts. If it were not for the Rs.30 TADA that is granted to the participants in the post-test, it is possible that few people would actually show up for the test. There is no real incentive for the teachers to seriously follow the English tuition program other than their personal motivation to pass the SLC English section. Unless and until some provisions are made for clear incentives for these teachers, this SLC-focused program is of little use to them.

C. RECOMMENDATIONS

1. The availability of a subsidized radio should be linked in some way to completion of the course and taking the post-test, and not just to enrollment in the course. Perhaps those who fail to take the post-test should be required to pay the full market cost of the radio. Participants who were not able to attend the post-test due to unavoidable circumstances would have to take a makeup test at the DEO.
2. RED should issue certificates to those who successfully complete the broadcast and pass the post-test. No monetary reward would accompany the certificate. Interested SLC holders could also join the program.
3. Prizes could be awarded to people who score highest on the post-test. Perhaps ten outstanding participants in the post-test could be given awards at a ceremony at RED. It would be very motivational if awards were given by the education minister. Perhaps awards could also be made at the district level as well.
4. If the English tuition course is to be geared to the SLC, then the present programs should be rewritten and focused on the content of grades 9-10. Broadcasts should follow the sequence of the books and a study guide should be prepared to help teachers follow the radio course and to give explanations and exercises that are not in the regular books. The broadcasts and study guide should be geared towards the format of the SLC to help participants prepare for that examination.
5. Broadcasts should include assignments for the learners so that they are motivated to study more, and answers to those assignments so that the learners receive feedback on their progress and problems. The present group of teachers seems to be able to spend at least 30

minutes a day for 3-4 days a week on independent study outside of the radio program. The radio tuition program should encourage and direct this self-study time through assignment of homework in the study guide or textbooks. Answers to those exercises can be broadcast at a later date.

IX. CONCLUSION

The RETT project sequence is now eight years old, longer-lived than any of its kindred AID-supported radio projects in other developing countries. RETT's mandate of improving primary education through teacher training by radio is presently being met by two related programs. RETT I continues to bring teachers up to the "trained level" through a curriculum that focuses on the content of grades 1-3 and the methodologies needed to effectively teach that content. Teachers successfully completing the RETT I program achieve trained status and receive an extra monthly allowance. RETT I has not yet expanded its curriculum and audience to reflect the MOEC's decision to include grades four and five as part of the primary school system. It also needs to develop a system for contact sessions with participants--particularly for the teaching and practice of methods.

RETT II has undertaken a difficult experiment: the use of the interactive radio instruction system to deliver secondary-level instruction to under-SLC teachers so that they might pass the SLC and be promoted to permanent status. Although many RETT II participants have shown significant increases in their knowledge of English due to this program, it is doubtful that this 39-hour course will actually be enough to help most teachers pass the SLC English section. The Evaluation Team also has serious concerns about the concentration of RED's energies on this relatively small group of under-SLC teachers given the larger audiences that could benefit from educational radio.

The main task now facing the project, in addition to the development of broadcast products, is the continued development of RED as a distance education institution and its establishment as a permanent part of Nepal's education sector. Over the eight years of USAID/N involvement, institution-building has been marked by many delays, reversals, and staff and leadership changes. This situation has limited the impact of AID support. The recent sanctioning of 20 permanent posts for RED, however, is a powerful indication that AID is finally nearing its goal of institutionalization of RED. At this point in the RETT II project, USAID/Nepal must continue to address three long-standing issues:

- the institutionalization of RED as a distance education unit within the MOEC
- the elaboration of RED's role within the MOEC
- the type and degree of support that USAID/N should provide to RED following the end of the RETT II project.

The creation of permanent positions for RED finally establishes it as a permanent part of the MOEC. Its merger with the Training Sub-Division is another signal that policy makers are aware of its existence and eager for it to become an efficient and valuable part of the MOEC. In the interests of efficiency, cost-effectiveness, and concentration of resources, the Evaluation Team and many others affiliated with RED strongly feel that the MOEC should also act to merge RED with the Audio-Visual Division, thus creating one radio unit for the entire Ministry. This merger process should result in the creation of an independent distance education center to serve the needs of the entire Ministry.

Full institutionalization, however, will not be achieved simply by the creation of permanent posts and a series of mergers. It will only come when those posts are filled by energetic and competent people directed by forceful and knowledgeable leadership and when RED can demonstrate that it can produce quality programming that is

educationally effective. RED must find a way to retain the best people it already has and to attract and appoint newcomers who are creative and hardworking. The merger process must be managed in a manner that will strengthen the radio education staff and provide leadership that fully understands the development communication process and can ably represent the interests of the institution. RED must also demonstrate that it can produce high quality programming that makes a positive impact on its audience and is worthy of the resources expended.

Although the Evaluation Team has serious reservations about the present direction of the project, it feels that RED should go forward with present plans to develop an English course designed to help learners review the textbook materials for grades nine and ten in preparation for the SLC. In order to broaden its base of participants and to garner more recognition and support for its programming, the Team feels that the course should be targeted in 1988 towards the very large audience of SLC takers in the general population and not just towards the small group of under-SLC teachers likely to benefit from such a program. An attractive study guide to accompany the radio lessons should be prepared during 1987 for widespread distribution in 1988.

The key to the success of RETT II will be the quality of the English course. In instructional broadcasting, high quality means two things at once. It means quantifiable learning gains and also materials that measure up to professional broadcasting standards. The new English programs must be both very effective and very appealing if RED is to develop a broad-based and loyal constituency in the general learner population. The new English series is the project's opportunity to develop this constituency.

RED and the MOEC should also give serious attention to a re-determination of the target audience for educational radio. The Evaluation Team strongly feels that the present population of under-SLC teachers interested in passing the SLC is too small to merit the full attention of RED resources given the other audiences that are available, such as the 34,000 untrained primary teachers and the 1.5 million primary school children. A merger with the Audio-Visual Division will give RED the mandate to involve itself in radio programming beyond teacher training, such as direct instruction into classrooms and adult education. RED should look for larger learner populations if it is to make proper use of a mass medium like radio.

Before the completion of RETT II, USAID/N must begin to make some decisions on the type and degree of support that it is willing to give to RED in the future. Given the unsettled state of the institutionalization, staff, leadership, and quality issues, the Evaluation Team does not feel that it can make any strong, positive recommendations at this time other than to advise that USAID/N carry out a complete assessment of the status of educational radio in Nepal in 1988. This assessment should review the state of RED (e.g., staffing, leadership, products), survey the coverage of Radio Nepal, and specify the directions in which radio education should move in Nepal, including potential audiences and programs. A final part of this assessment will be to make recommendations to USAID/N on the degree of future support, if any, it should provide to Nepal's radio education efforts.

There is no doubt that RED is at a crucial point in its history. After almost a decade of struggle for legitimacy and permanency, it is close to achieving its goals; however, it is also at a danger point in terms of its future viability as an institution of quality. If it cannot retain its best people, recruit new people of competence, obtain skilled and dedicated leadership, and demonstrate that it can produce an English series of a high level of quality, it may become a permanent institution that is of minor value to

the MOEC. Actions taken over the next four months will largely determine the future quality of RED and, most probably, whether or not USAID/N should continue to support the development of radio education in Nepal.

X. APPENDICES

APPENDIX A:

Principal Interviewees

APPENDIX B:

Responses to Teacher Questionnaires:
Pilot English I Post-Test Participants
Pilot English II Admissions Test Participants

APPENDIX C:

Evaluation Workshop Agenda

APPENDIX D:

Evaluation Workshop Participants

APPENDIX E:

Scripting/Production/Evaluation (SPE) Cycle

APPENDIX F:

End-Use of Commodities/Equipments

APPENDIX G:

Map of RETT II Pilot Districts

APPENDIX A
PRINCIPAL INTERVIEWEES

CERID:

Madhan Mainali
Soorya Bahadur Shrestha
Badri Dev Pandey
Shreedhar Lohani
Roshan Chitrakar
Kishore Shrestha

IEES PROJECT:

Dibya Man Karmacharya
Barbara Butterworth

MINISTRY OF EDUCATION AND CULTURE:

Iswor Upadhyay (Examinations)
Kedar Nath Shrestha (CTSDC)
Kuber Gartaula (Audio-Visual, CTSDC)

RADIO EDUCATION DIVISION:

Nanda Krishna Karmacharya
Shraddhaman Shakya
Mukesh Bahadur Pradhan
Maya Sitaula
Dwight Holmes
Philip Sedlak
Maurice Imhoof

RADIO NEPAL:

Mahesh Adhikari
Paul Caldwell
Bhogya Prasad Shah

USAID/NEPAL:

Virgil Miedema
Jean Meadowcroft

APPENDIX B

TEACHER QUESTIONNAIRE: PILOT ENGLISH I POST-TEST PARTICIPANTS

N = 126 RETT II participants from four districts

1. **How clearly can you hear the English tuition program at your home?**

Very Good	0.7%
Good	9.2%
OK	56.0%
Poor	21.3%
Very Poor	12.8%

2. **Did you appear for the SLC this year?**

Yes	16%
No	84%

3. **Generally, how many times a week did you listen to the English tuition program?**

Once	2%
Twice	11%
Three Times	85%
Four Times	2%

4. **What should be the suitable number of broadcasts per week for English tuition?**

Once	0%
Twice	3%
Three Times	21%
Four Times	13%
Five Times	25%
Six Times	15%
Seven Times	23%

5. **The present program of 20 minutes is:**

Too Long	0%
Adequate	12%
Too Short	88%

6. **What would be the most suitable length of the program?**

10 minutes	0%
20 minutes	5%
30 minutes	32%
40 minutes	24%
50 minutes	4%
60 minutes	35%

7. What time do you prefer for the broadcast?

4-5 p.m.	1%
5-6 p.m.	7%
6-7 p.m.	26%
7-8 p.m.	38%
8-9 p.m.	27%
9-10 p.m.	1%

8. How many days a week did you devote to self-study?

1 day	4%
2 days	11%
3 day	25%
4 days	27%
5 days	15%
6 days	9%
7 days	9%

9. How much time did you spend in self-study during those days?

10 minutes	7%
20 minutes	14%
30 minutes	39%
40 minutes	11%
50 minutes	5%
60 minutes	19%
1 hour plus	5%

10. Radio Tuition was:

Useful to me	92%
Not useful to me	8%

11. In what way was it useful? (Select one or more reasons.)

To upgrade my content knowledge	43 people
To improve my teaching	80 people
To prepare for the SLC	67 people
To obtain a radio	2 people

12. Radio Tuition:

Did not help me at all	1%
Helped me a little	44%
Helped me a lot	55%

13. My experience with listening to the English Tuition program was:

Following radio directions	Easy: 48%	Difficult: 52%
Understanding the reading passages	Easy: 36%	Difficult: 64%
Understanding the radio dialogues	Easy: 21%	Difficult: 79%

14. If there are additional programs like the English Tuition program:

I will listen to them	98%
I won't listen to them	2%

15. Of the following programs, which would you want to follow?

English	104 people
Math	104 people
Science	90 people
Nepali	71 people

16. To improve this program, I suggest:

Increasing the number of broadcasts per week	50 people
Increasing the number of contact sessions	72 people
Increasing the length of the broadcasts	70 people
Increasing the level of supervision	48 people
Increasing the amount of materials	41 people

17. Do you listen to the in-school broadcasts (by Audio-Visual)?

Yes	76%
No	24%

18. If you do, which subjects do you listen to?

English	69 people
Nepali	62 people
Social studies	45 people

19. If you listen to the in-school broadcasts, which did you like better?

In-school English	66%
Radio Tuition English	34%

TEACHER QUESTIONNAIRE: ADMISSIONS TEST PARTICIPANTS

N = 164 teacher-applicants from four districts

1. How many days a week do you want to listen to Radio Tuition?

One	0%
Two	3%
Three	8%
Four	6%
Five	18%
Six	26%
Seven	39%

2. How long should the broadcasts be?

10 minutes	0%
20 minutes	3%
30 minutes	27%
40 minutes	14%
50 minutes	7%
60 minutes	49%

3. What would be the most suitable times for the broadcasts?

4-5 p.m.	0%
5-6 p.m.	20%
6-7 p.m.	37%
7-8 p.m.	26%
8-9 p.m.	13%
9-10 p.m.	4%

4. Do you have time to spend on self-study outside of the broadcasts?

Yes	91%
No	9%

5. How long can you spend per day for self-study?

10 minutes	0%
20 minutes	3%
30 minutes	27%
40 minutes	7%
50 minutes	6%
60 minutes	28%
1 hour plus	28%

6. Why do you want to join this program?

To upgrade my content knowledge	20 people
To improve my teaching	47 people
To prepare for the SLC	55 people
To obtain a radio	0 people

7. Which subjects should Radio Tuition broadcast?

English	147 people
Science	40 people
Math	82 people
Nepali	43 people

8. What other areas would you like to have covered in this program?

Agriculture	143 people
Topics of general interest	103 people
Popular news and events	84 people
Family planning	79 people
Women's programs	39 people

APPENDIX C

RETT II MIDTERM EVALUATION WORKSHOP

Hotel Himalaya
Kathmandu, Nepal
Wednesday, February 25, 1987

AGENDA

8:00 - 8:30	<u>Opening remarks</u>	
8:30 - 8:40	<u>Procedures (Dr. Shaw)</u>	
8:40 - 9:10	<u>Evaluation Team: Introductory Presentations</u>	
	Dr. Shaw:	Overview of the Issues (Institutionalization; research; staffing)
	Mr. Edgerton:	Technical State of the Project (English; mathematics; program quality)
	Dr. Wagley:	The Learner's Perspective (Recent findings in the field; learner incentives; broadcast reception)
9:10 - 10:15	<u>Discussion</u>	
	Moderator:	Dr. Shaw
	Issue:	Future directions: What is RED's learner population?
10:15 - 10:30	<u>Morning Tea</u>	
10:30 - 11:30	<u>Discussion</u>	
	Moderator:	Dr. Shaw
	Issues:	Institutionalization; staffing
11:30 - 12:30	<u>Discussion</u>	
	Moderator:	Dr. Wagley
	Issue:	Institutionalization at regional and district levels
12:30 - 1:30	<u>Luncheon Buffet</u>	
1:30 - 2:30	<u>Discussion</u>	
	Moderator:	Mr. Edgerton
	Issues:	A commitment to technical excellence; studio talent; Pilot English II; possible future activities

2:30 - 3:00

Discussion

Moderator:

Dr. Wagley

Issue:

Learner incentives

3:00 - 3:15

Afternoon Tea

3:15 - 3:45

Discussion

Moderator:

Dr. Wagley

Issue:

Broadcast reception

3:45 - 4:30

Discussion

Moderator:

Dr. Shaw

Issue:

The research component

4:30 - 5:30

Summary Discussion

Moderator:

Dr. Shaw

Closure

APPENDIX D

EVALUATION WORKSHOP PARTICIPANTS

HIMALAYA HOTEL
WEDNESDAY 25, 1987
8:00 A.M. - 5:30 P.M.

AID/W

Dr. David Sprague
S&T/ED

CERID STAFF

Dr. Madhav P. Mainali
Director, CERID

Mr. Surya Bahadur Shrestha
CERID

Mr. Kishor Shrestha
CERID

Mr. Roshan Chitrakar
CERID

EVALUATION TEAM

Dr. Willard Shaw
Mr. David Edgerton
Dr. Mana Prasad Wagley

MOEC MANAGEMENT

Mr. Gopi Nath Sharma
Joint Secretary, MOEC

Dr. Iswor Upadhyay
Examination Controller's Office

RED ADVISORS

Mr. Dwight R. Holmes
Research/Education System Advisor

Dr. Philip Sedlak
Instructional Materials
Production Specialist (AED)

Dr. Maurice Imhoof
Short-Term Advisor (AED)

Dr. Dibya Man Karmacharya
IEES Advisor

RED STAFF

Mr. Nanda K. Karmacharya
Head, Radio Education Division

Mr. Murari Adhikary
Radio Education Division

Mr. Rameshwar Shrestha
Radio Education Division

Mr. Devendra Upadhyaya
Scriptwriter Coordinator
Radio Education Division

USAID/N

Mr. Virgil Miedema
PDIS Office

Mr. Tri Ratna Tuladhar
PDIS Office

APPENDIX E

SCRIPTING/PRODUCTION/EVALUATION (SPE) CYCLE

1. Methodology
2. Segments Written
3. Script Assembly
4. Script Review
5. Script Revision
6. Script Timed and Approved
7. Script Copied and Distributed
8. Pre-production
9. Production
10. Post-production
11. Formative Evaluation Materials Written
12. Formative Evaluation Materials Reviewed
13. Broadcast
14. Observation and Discussion

APPENDIX F

END-USE CHECK OF EQUIPMENT/COMMODITIES

An end-use check of equipment/commodities procured under the Radio Education Teacher Training II Project (No. 367-0146) was conducted on February 12, 1987 at the Radio Education Division and on February 17, 1987 at Radio Nepal by Tri R. Tuladhar of PDIS, USAID/Nepal. It was found that all of the equipment/commodities supplied to the project were actually being used for the purposes intended. They are well-maintained and in good condition, and proper inventory records are kept according to HMG/N rules and regulations.

These commodities include the following items:

Radio Education Division

- 4-wheel drive Nissan Patrol Utility Wagon
- 17 electric blow heaters
- automatic telephone exchange system
- VIP skeleton rack with 4 shelves
- 4 Xerox electronic typewriters
- Xerox plain paper copier
- 10 steel filing cabinets
- Gestetner mimeograph machine
- Honda 5 KVA generator
- 1,500 radio sets
- electronic equipment and spare parts for studio
- 520 Ampex recording tapes
- 3 Honda XL 125 Motorcycles

Radio Nepal

- Radio electronic equipment and spare parts including: audio transmitter link, audio gain rider, audio limiter, heavy duty batteries, AM modulation monitor, transfer panel transmitter, transfer panel receiver, power divider, and other miscellaneous items

APPENDIX G

RETT II PILOT DISTRICTS

Phase I: Five Districts in 1986-87

Phase II: Five Additional Districts in 1987-88

